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SMITHSONIAN INSTITUTION  
ASTROPHYSICAL OBSERVATORY

Research in Space Science

SPECIAL REPORT

Number 66

CATALOGUE OF SATELLITE OBSERVATIONS  
No. C-22

ASTIA  
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July 17, 1961  
CAMBRIDGE 38, MASSACHUSETTS

\$ 5.60  
P.53

SAO Special Report No. 66

CATALOGUE OF SATELLITE OBSERVATIONS

No. C-22

Prepared by D. V. Mechau

Smithsonian Institution  
Astrophysical Observatory

Cambridge 38, Massachusetts

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## CATALOGUE OF SATELLITE OBSERVATIONS, NO. C-22

Prepared by D. V. Mechau<sup>1</sup>

### INTRODUCTION

#### ANALYSIS

*Graph Zeta* *Graph Beta* *Graph Alpha*  
This report lists observations of Satellites 19S8 Alpha, 19S8  $\beta$ 1, 19S9  $\alpha$ 1, 19S9  $\alpha$ 2, 19S9 Eta, and 19S9  $\zeta$ 1 for the period September 1 through December 31, 1960, as well as additions and corrections to previous listings of observations of these satellites and for 1958 Epsilon. Because it is sometimes impractical and unnecessary to process all observations received, and because some processed observations are rejected because of gross error, this report contains only those actually found useful in our orbit computations.

The observations listed include those from the Smithsonian Baker-Nunn camera stations, Moonwatch teams, U. S. and foreign observatories, military installations, Phototrack stations, and miscellaneous observers. A number of observations have been received from the National Space Surveillance Control Center (NSSCC), under an arrangement involving an exchange of observations of artificial earth satellites. Minitrack Doppler data received by SAO are not included.

#### Units

The date given lists the month and day of the observation; the time (U. T.) is given in hours, minutes, and seconds; right ascension is in hours, minutes, and seconds; declination, azimuth, and altitude are in degrees, minutes, and seconds; azimuth is measured from north through east; the range is in kilometers.

An explanation of the Index Number appears on pages 3 and 4.

<sup>1</sup>Administrative Assistant, Computations Division, Smithsonian Astrophysical Observatory.

# EXPLANATION OF INDEX NUMBER

The index number in the column to the extreme right consists of six digits. The first digit indicates the precision of the time of the observation; the second and third digits, the precision of position; the fourth digit, the coordinate system and corrections; the fifth digit, the equator and equinox; the sixth digit, the type of instrumentation used in making the observation.

## Precision of Time (1st digit)

Code number	Standard error in timing ( $\sigma_t$ )	Code number	Standard error in timing ( $\sigma_t$ )
0	No estimate	5	$.02^s < \sigma_t \leq .05^s$
1	$\sigma_t \leq .0003^s$	6	$.05^s < \sigma_t \leq .2^s$
2	$.0003^s < \sigma_t \leq .002^s$	7	$.2^s < \sigma_t \leq .5^s$
3	$.002^s < \sigma_t \leq .005^s$	8	$.5^s < \sigma_t \leq 2^s$
4	$.005^s < \sigma_t \leq .02^s$	9	$\sigma_t > 2^s$

## Precision of Position (2nd and 3rd digits)

Code number*	Standard error in direction ( $\sigma_D$ )	Code number*	Standard error in direction ( $\sigma_D$ )	Code number*	Standard error in direction ( $\sigma_D$ )
00	No estimate	17	$16''.5 < \sigma_D \leq 17''.5$	34	$21' < \sigma_D \leq 31.5'$
01	$\sigma_D \leq 1''.5$	18	$17''.5 < \sigma_D \leq 18''.5$	35	$31.5' < \sigma_D \leq 41.4'$
02	$1''.5 < \sigma_D \leq 2''.5$	19	$18''.5 < \sigma_D \leq 19''.5$	36	$41.4' < \sigma_D \leq 51.8'$
03	$2''.5 < \sigma_D \leq 3''.5$	20	$19''.5 < \sigma_D \leq 20''.5$	37	$51.8' < \sigma_D \leq 71.5'$
04	$3''.5 < \sigma_D \leq 4''.5$	21	$20''.5 < \sigma_D \leq 22''$	38	$71.5' < \sigma_D \leq 91.7'$
05	$4''.5 < \sigma_D \leq 5''.5$	22	$22'' < \sigma_D \leq 23''.5$	39	$91.7' < \sigma_D \leq 13'$
06	$5''.5 < \sigma_D \leq 6''.5$	23	$23''.5 < \sigma_D \leq 26''$	40	$13' < \sigma_D \leq 17'$
07	$6''.5 < \sigma_D \leq 7''.5$	24	$26'' < \sigma_D \leq 29''$	41	$17' < \sigma_D \leq 22'$
08	$7''.5 < \sigma_D \leq 8''.5$	25	$29'' < \sigma_D \leq 33''$	42	$22' < \sigma_D \leq 28'$
09	$8''.5 < \sigma_D \leq 9''.5$	26	$33'' < \sigma_D \leq 38''$	43	$28' < \sigma_D \leq 37'$
10	$9''.5 < \sigma_D \leq 10''.5$	27	$38'' < \sigma_D \leq 45''$	44	$37' < \sigma_D \leq 49'$
11	$10''.5 < \sigma_D \leq 11''.5$	28	$45'' < \sigma_D \leq 54''$	45	$49' < \sigma_D \leq 1^{\circ}1'$
12	$11''.5 < \sigma_D \leq 12''.5$	29	$54'' < \sigma_D \leq 1^{\circ}1'$	46	$1^{\circ}1' < \sigma_D \leq 1^{\circ}4'$
13	$12''.5 < \sigma_D \leq 13''.5$	30	$1^{\circ}1' < \sigma_D \leq 1^{\circ}3'$	47	$1^{\circ}4' < \sigma_D \leq 1^{\circ}8'$
14	$13''.5 < \sigma_D \leq 14''.5$	31	$1^{\circ}3' < \sigma_D \leq 1^{\circ}7'$	48	$1^{\circ}8' < \sigma_D \leq 2^{\circ}4'$
15	$14''.5 < \sigma_D \leq 15''.5$	32	$1^{\circ}7' < \sigma_D \leq 2^{\circ}1'$	49	$2^{\circ}4' < \sigma_D$
16	$15''.5 < \sigma_D \leq 16''.5$	33	$2^{\circ}1' < \sigma_D \leq 2^{\circ}7'$		

\* For electronic instruments, these code numbers (2nd and 3rd digits of the index in table 6) are increased by 50.

#### Coordinate System and Corrections (4th digit)

Code number	Coordinate System
0	Right ascension and declination corrected for refraction or not known to be corrected.
1	Azimuth and altitude corrected for refraction.
2	Right ascension and declination not corrected for refraction.
3	Azimuth and altitude not corrected for refraction or not known to be corrected.

#### Equator and Equinox (5th digit)

Code number	Equator and Equinox
0	Of date given
1	1855.0
2	1875.0
3	1900.0
4	1950.0

#### Type of Instrumentation (6th digit)

Code number	Optical Observations	Code number	Electronic Observations
0	Naked eye and binoculars, visual.	0	Minitrack Mark 1.
1	Standard Moonwatch telescope, visual.	1	Minitrack Mark 2.
2	Apogee telescope, astronomical refractor or reflector, theodolite, visual.	2	Interferometer observations from radio observatories.
3	Baker-Nunn camera, photographic.	3	Doppler observations from radio observatories.
4	Small missile telecamera, tracking cameras with focal length 20 inches or greater, photographic.	4	Microlock.
5	Cinetheodolite, tracking cameras with focal length less than 20 inches, photographic.	5	Doppler observations from communications systems.
6	Harvard meteor camera (Super-Schmidt) photographic.	6	Doppler observations from missile ranges.
7	Stationary telescope or camera with focal length equal to or less than 10 inches, photographic.	7	Radar.
8	Stationary telescope or camera with focal length greater than 10 inches, photographic.	8	Unused digit.
9	Other instruments, or instrument unknown.	9	Miscellaneous.



## 1958 ALPHA

OBS NO	STATION	STA NO	DATE	TIME	R. A.	OECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10233	VILLA DOLORES'BN, ARG	9011	9 01	0 38 20.31	19 07 00	-38 53				434023
10231	WOOMERA'BN, AUSTR.	9003	9 01	11 26 13.04	18 59 24	-41 34				434023
50007	LAREDO'RADAR, TEX.	4012	9 01	13 58 43			355 54	35 00	1413	895307
10232	JUPITER'BN, FLA.	9010	9 02	9 36 26.49	6 38 42	-10 24				434013
10237	WOOMERA'BN, AUSTR.	9003	9 02	10 45 53.91	19 02 24	-41 21				434023
10244	MAUI'BN, HAWAII	9012	9 02	14 59 33.34	1 01 36	-63 48				434013
10234	OLIFANTSFNTN'BN, S.AF	9002	9 02	17 56 24.90	18 13 06	-57 53				434023
10241	VILLA DOLORES'BN, ARG	9011	9 02	23 16 26.19	17 54 18	-36 49				434023
10235	OLIFANTSFNTN'BN, S.AF	9002	9 03	17 15 22.30	17 38 18	-56 40				434023
10240	SHIRAZ'BN, IRAN	9008	9 04	1 09 54.69	3 55 00	-1 36				434013
10238	WOOMERA'BN, AUSTR.	9003	9 04	11 19 38.88	19 03 24	-32 58				434023
10236	OLIFANTSFNTN'BN, S.AF	9002	9 04	18 31 34.40	19 53 30	-48 16				434023
10242	VILLA DOLORES'BN, ARG	9011	9 04	23 46 30.54	15 47 36	-27 59				434023
10243	VILLA DOLORES'BN, ARG	9011	9 04	23 51 01.11	18 54 36	-35 07				434023
10239	WOOMERA'BN, AUSTR.	9003	9 05	10 38 26.91	18 25 54	-36 07				434023
10247	OLIFANTSFNTN'BN, S.AF	9002	9 05	17 49 54.50	18 45 06	-51 43				434023
10245	AREQUIPA'BN, PERU	9007	9 06	1 03 44.78	18 59 12	-68 02				434023
10246	VILLA DOLORES'BN, ARG	9011	9 06	1 04 40.71	18 31 12	-18 52				434013
10701	NAINI TAL'BN, INDIA	9006	9 06	23 16 19.92	6 14 54	61 27				434013
10249	VILLA DOLORES'BN, ARG	9011	9 07	0 24 59.55	20 04 24	-14 56				434013
10248	WOOMERA'BN, AUSTR.	9003	9 07	11 12 15.07	18 44 24	-17 43				434013
10702	OLIFANTSFNTN'BN, S.AF	9002	9 07	18 25 23.95	20 24 12	-25 00				434023
10251	VILLA DOLORES'BN, ARG	9011	9 07	23 37 24.52	14 28 00	-25 30				434023
10252	VILLA DOLORES'BN, ARG	9011	9 07	23 44 59.55	21 31 18	-6 10				434013
10250	WOOMERA'BN, AUSTR.	9003	9 08	10 30 21.49	17 52 00	-24 30				434023
10253	VILLA DOLORES'BN, ARG	9011	9 08	22 00 39.25	17 00 54	-31 12				434023
10257	WOOMERA'BN, AUSTR.	9003	9 09	9 50 11.95	18 24 36	-25 23				434023
10267	WOOMERA'BN, AUSTR.	9003	9 09	11 45 52.72	18 48 36	7 13				434013
10254	OLIFANTSFNTN'BN, S.AF	9002	9 09	17 00 50.20	18 02 30	-42 30				434023
10258	AREQUIPA'BN, PERU	9007	9 10	0 16 24.26	19 53 24	-51 57				434023
10255	SAN FERNANDO'BN, SP.	9004	9 10	4 32 03.10	4 05 54	-8 52				434013
10256	OLIFANTSFNTN'BN, S.AF	9002	9 10	18 16 00.20	18 34 36	-10 11				434013
10259	VILLA DOLORES'BN, ARG	9011	9 10	23 34 18.72	17 32 42	-12 22				434013
10261	OLIFANTSFNTN'BN, S.AF	9002	9 11	17 35 29.50	18 57 36	-12 09				434013
10262	OLIFANTSFNTN'BN, S.AF	9002	9 11	19 28 23.10	17 36 00	11 29				434013
10264	AREQUIPA'BN, PERU	9007	9 12	0 51 01.25	20 08 18	-16 57				434013
10260	OLIFANTSFNTN'BN, S.AF	9002	9 12	18 50 02.70	18 47 12	21 11				434013
10265	AREQUIPA'BN, PERU	9007	9 13	0 09 08.48	19 46 00	-25 39				434023
10263	SAN FERNANDO'BN, SP.	9004	9 13	4 25 03.50	5 11 24	-6 12				434013
10269	AREQUIPA'BN, PERU	9007	9 14	1 22 00.68	18 10 36	6 48				434013
10266	OLIFANTSFNTN'BN, S.AF	9002	9 14	17 26 11.20	17 59 00	7 44				434013
10268	SAN FERNANDO'BN, SP.	9004	9 15	4 57 01.80	3 58 12	-22 37				434013
10277	VILLA DOLORES'BN, ARG	9011	9 15	23 58 14.50	17 10 24	23 46				434013
10273	AREQUIPA'BN, PERU	9007	9 15	23 58 39.64	17 54 00	-6 34				434013
10275	CURACAO'BN, N.W.I.	9009	9 16	0 06 43.53	21 52 00	-35 12				434023
10274	AREQUIPA'BN, PERU	9007	9 16	1 51 28.30	16 41 48	14 56				434013
10271	WOOMERA'BN, AUSTR.	9003	9 16	10 46 48.77	17 28 42	30 19				434013
10276	CURACAO'BN, N.W.I.	9009	9 16	23 24 33.97	21 26 00	-38 56				434023
10272	WOOMERA'BN, AUSTR.	9003	9 17	10 03 24.04	16 31 00	22 19				434013
10270	OLIFANTSFNTN'BN, S.AF	9002	9 17	17 16 27.00	17 14 18	24 44				434013
10278	CURACAO'BN, N.W.I.	9009	9 18	23 56 53.63	20 55 30	-17 27				434013
10279	MAUI'BN, HAWAII	9012	9 19	5 19 47.72	21 24 24	-30 31				434023
10281	NAINI TAL'BN, INDIA	9006	9 21	14 54 49.57	21 41 06	-7 16				434013
10284	SHIRAZ'BN, IRAN	9008	9 21	16 41 48.57	21 12 30	-10 29				434013
10280	SAN FERNANDO'BN, SP.	9004	9 21	20 17 13.00	21 32 48	-20 20				434013
10282	CURACAO'BN, N.W.I.	9009	9 21	23 46 14.41	20 01 24	9 02				434013
10283	CURACAO'BN, N.W.I.	9009	9 22	1 41 44.29	18 56 18	48 24				434013
10289	TOYU'BN, JAPAN	9005	9 22	10 39 22.00	21 29 12	-15 54				434013
10286	NAINI TAL'BN, INDIA	9006	9 22	14 11 46.50	20 52 18	-14 38				434013
10285	SAN FERNANDO'BN, SP.	9004	9 22	19 35 11.90	21 17 06	-21 33				434013
30057	SAN JOSE, CAL.	8573	9 23	4 37 07.8			180	38 16 48		845304
10290	NAINI TAL'BN, INDIA	9006	9 23	13 31 20.52	21 31 42	-10 04				434013
10291	NAINI TAL'BN, INDIA	9006	9 23	15 24 50.25	20 44 30	13 07				434013
10287	SAN FERNANDO'BN, SP.	9004	9 23	20 48 02.30	21 27 42	-4 54				434013
10297	CURACAO'BN, N.W.I.	9009	9 24	0 16 54.17	16 48 18	38 57				434013
10295	MAUI'BN, HAWAII	9012	9 24	5 40 37.83	20 37 48	16 40				434013
10296	MAUI'BN, HAWAII	9012	9 24	7 34 21.62	18 50 12	42 11				434013
10292	NAINI TAL'BN, INDIA	9006	9 24	14 46 09.17	23 04 42	19 13				434013
10293	JUPITER'BN, FLA.	9010	9 25	1 29 27.36	20 32 00	22 21				434013
10294	JUPITER'BN, FLA.	9010	9 25	1 31 56.44	22 31 00	29 30				434013
10298	MAUI'BN, HAWAII	9012	9 25	6 53 24.81	19 56 24	47 28				434013
10300	SHIRAZ'BN, IRAN	9008	9 25	15 47 54.58	20 24 12	4 09				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10288	SAN FERNANDO'BN, SP.	9004	9 25	19 23 35.00	20 58 42	- 9 08				434013
10301	SHIRAZ'BN, IRAN	9008	9 26	17 02 36.43	22 00 30	34 48				434013
10299	SAN FERNANDO'BN, SP.	9004	9 26	20 37 12.50	21 58 06	11 02				434013
10302	JUPITER'BN, FLA.	9010	9 27	2 00 58.10	21 22 06	45 27				434013
30076	MITAKA, JAPAN	0229	9 27	10 57 44.0			165 54	58 12		845303
10304	SAN FERNANDO'BN, SP.	9004	9 27	19 53 15.70	20 42 42	5 20				434013
10305	JUPITER'BN, FLA.	9010	9 28	1 17 31.22	20 21 06	39 58				434013
10303	ORGAN PASS'BN, N.M.	9001	9 28	3 07 28.50	22 01 12	26 33				434013
30058	WICHITA, KAN.	0028	9 28	3 08 38.4	21 07 52	14 04				845043
10309	MAUI'BN, HAWAII	9012	9 28	6 41 35.15	19 52 12	59 59				434013
10310	TOKYO'BN, JAPAN	9005	9 28	10 13 51.80	19 48 24	7 38				434013
10311	SHIRAZ'BN, IRAN	9008	9 28	15 35 09.20	19 40 18	20 53				034013
10312	SHIRAZ'BN, IRAN	9008	9 28	17 31 17.78	20 42 00	43 06				034013
10307	SAN FERNANDO'BN, SP.	9004	9 28	19 10 36.70	20 24 12	2 03				434013
10308	SAN FERNANDO'BN, SP.	9004	9 28	21 06 32.60	21 40 42	20 24				434013
30059	WICHITA, KAN.	0028	9 29	2 25 30.2	20 28 36	11 22				845043
10306	ORGAN PASS'BN, N.M.	9001	9 29	4 17 36.50	20 19 24	34 08				434013
10318	MAUI'BN, HAWAII	9012	9 29	5 57 08.87	16 07 12	50 50				434013
10314	TOKYO'BN, JAPAN	9005	9 29	9 31 55.10	20 01 18	6 19				434013
10315	NAINI TAL'BN, INDIA	9006	9 29	15 01 23.70	21 00 06	43 10				434013
10316	SHIRAZ'BN, IRAN	9008	9 29	16 48 25.59	20 20 42	41 22				434013
10313	SAN FERNANDO'BN, SP.	9004	9 29	20 22 41.90	20 28 42	17 35				434013
10328	CURACAO'BN, N.W.I.	9009	9 29	23 52 52.51	17 19 30	65 26				434013
10317	JUPITER'BN, FLA.	9010	9 30	1 47 37.18	20 28 12	51 08				434013
10319	ORGAN PASS'BN, N.M.	9001	9 30	3 35 38.00	20 40 30	34 30				434013
10327	MAUI'BN, HAWAII	9012	9 30	5 14 05.63	17 46 00	47 30				434013
10322	TOKYO'BN, JAPAN	9005	9 30	10 44 43.30	20 36 36	22 26				434013
30077	MITAKA, JAPAN	0229	9 30	10 44 49.3			173 12	77 12		845303
10323	NAINI TAL'BN, INDIA	9006	9 30	14 17 24.04	19 37 24	38 46				434013
10325	SHIRAZ'BN, IRAN	9008	9 30	16 05 03.20	19 35 18	38 02				434013
10320	SAN FERNANDO'BN, SP.	9004	9 30	19 39 35.10	19 56 12	14 38				434013
30060	TERRE HAUTE, IND.	8127	10 01	1 02 22.4	19 50 46	6 46				845044
30061	WICHITA, KAN.	0028	10 01	2 55 50.6	21 06 53	19 00				845043
10326	SHIRAZ'BN, IRAN	9008	10 01	15 21 47.70	19 00 36	34 16				434013
10324	NAINI TAL'BN, INDIA	9006	10 01	15 31 23.33	21 26 48	45 26				434013
10321	SAN FERNANDO'BN, SP.	9004	10 01	20 52 49.70	21 04 48	22 30				434013
30062	STATE COLLEGE, PA.	0060	10 02	0 23 56.6			152 30	54 42		845303
30063	SACRAMENTO, CAL.	8517	10 02	4 00 59.9			180 00	67 36		841304
10329	SHIRAZ'BN, IRAN	9008	10 02	16 35 30.01	20 33 30	45 04				434013
10332	MAUI'BN, HAWAII	9012	10 03	5 02 02.83	18 29 00	62 48				434013
10333	MAUI'BN, HAWAII	9012	10 03	7 00 00.64	22 09 00	64 34				434013
10451	WOOMERA'BN, AUSTR.	9003	10 03	12 46 43.24	0 06 36	-23 00				434013
10330	SAN FERNANDO'BN, SP.	9004	10 03	19 25 16.00	19 08 12	20 14				434013
10331	SAN FERNANDO'BN, SP.	9004	10 03	21 21 22.20	20 42 12	17 37				434013
30064	ROCHESTER, N.Y.	0047	10 04	0 52 05.6	20 26 18	4 30				845034
30065	DENVER, COLO.	8582	10 04	2 38 43.2			181 30	63 36		845303
10334	MAUI'BN, HAWAII	9012	10 04	6 14 31.54	18 40 54	65 00				434013
30066	SACRAMENTO, CAL.	8517	10 05	3 47 18.3			180 00	66 35		841304
10337	SHIRAZ'BN, IRAN	9008	10 05	16 22 01.30	20 49 36	41 18				434013
30067	DENVER, COLO.	8582	10 06	1 12 59.1			176 00	61 36		845303
30069	KANSAS CITY, MO.	0036	10 06	1 13 35.05			204	63 45 00		845303
10335	JUPITER'BN, FLA.	9010	10 06	1 22 02.99	21 56 36	43 51				434013
30070	CHINA LAKE, CAL.	0098	10 06	3 03 04.6			247 54	65 24		841303
30068	DENVER, COLO.	8582	10 06	3 08 43.8			191 42	57 24		845303
10345	SHIRAZ'BN, IRAN	9008	10 06	15 38 13.93	19 57 00	44 08				434013
10346	SHIRAZ'BN, IRAN	9008	10 06	17 29 59.82	18 15 30	26 34				434013
10336	WOOMERA'BN, AUSTR.	9003	10 06	18 10 40.30	6 21 48	8 38				434013
10338	SAN FERNANDO'BN, SP.	9004	10 06	19 11 54.10	19 34 18	21 52				434013
10339	SAN FERNANDO'BN, SP.	9004	10 06	21 07 40.30	20 48 18	7 06				434013
30071	TERRE HAUTE, IND.	8127	10 07	0 34 59.4	19 48 15	12 10				845043
30072	DENVER, COLO.	8582	10 07	2 25 06.0			189 12	59 36		845303
30073	SAN JOSE, CAL.	8573	10 07	4 16 47.4			180	60 19 12		845304
10343	NAINI TAL'BN, INDIA	9006	10 07	15 03 13.11	20 48 36	28 16				434013
10347	SHIRAZ'BN, IRAN	9008	10 07	16 51 20.12	21 11 54	23 20				434013
10340	SAN FERNANDO'BN, SP.	9004	10 07	20 24 13.50	20 23 54	10 30				434013
10342	TOKYO'BN, JAPAN	9005	10 08	10 46 01.10	20 34 12	8 11				434013
10344	NAINI TAL'BN, INDIA	9006	10 08	14 23 39.17	23 14 18	15 38				434013
10348	SHIRAZ'BN, IRAN	9008	10 08	16 07 47.85	20 52 42	30 03				434013
10341	SAN FERNANDO'BN, SP.	9004	10 08	19 40 43.90	19 59 12	13 22				434013
30074	CHINA LAKE, CAL.	8588	10 09	2 50 14.7			191 43 12	71 36 00		845303
10351	SHIRAZ'BN, IRAN	9008	10 09	15 23 41.22	20 02 30	36 06				434013
10352	SHIRAZ'BN, IRAN	9008	10 09	17 18 53.31	20 24 06	6 41				434013
10354	SAN FERNANDO'BN, SP.	9004	10 09	18 57 09.90	19 30 54	15 46				434013
10355	SAN FERNANDO'BN, SP.	9004	10 09	20 52 46.40	20 30 54	- 5 44				434013
10349	CURACAO'BN, N.W.I.	9009	10 09	23 14 34.86	21 40 54	75 00				434013
10353	CURACAO'BN, N.W.I.	9009	10 10	0 28 38.01	22 55 12	56 02				434013
10350	ORGAN PASS'BN, N.M.	9001	10 10	2 10 10.50	19 57 18	21 08				434013
10357	MAUI'BN, HAWAII	9012	10 10	5 47 38.98	21 57 18	46 38				434013
10363	SHIRAZ'BN, IRAN	9008	10 10	16 36 13.42	20 43 48	8 12				434013
10358	SAN FERNANDO'BN, SP.	9004	10 10	20 08 47.40	19 54 48	- 1 19				434013

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10359	SAN FERNANDO'BN. SP.	9004	10 10	22 00 47.10	19 16 42	-11 03				434013
10356	CURACAO'BN. N.W.I.	9009	10 10	23 44 41.11	22 42 30	60 09				434013
10360	WOOMERA'BN. AUSTR.	9003	10 11	16 23 20.54	2 49 00	-34 20				434023
10361	SAN FERNANDO'BN. SP.	9004	10 11	19 25 33.70	19 47 48	0 28				434013
10362	SAN FERNANDO'BN. SP.	9004	10 11	21 19 40.30	19 52 42	-16 47				434013
50013	AIKEN, S.C.	6023	10 12	0 51 13.0	20 47 03	-2 19				634042
30075	CHINA LAKE, CAL.	0098	10 12	2 34 38.6			198 44 24	58 36 00		641303
10388	MAUI'BN. HAWAII	9012	10 12	6 17 30.92	21 47 00	18 55				434013
10364	WOOMERA'BN. AUSTR.	9003	10 12	17 42 43.45	7 05 12	-34 48				434023
10366	SAN FERNANDO'BN. SP.	9004	10 12	20 36 33.90	19 47 12	-16 30				434013
50014	AIKEN, S.C.	6023	10 13	0 06 55.6	20 07 00	3 30				634042
10365	CURACAO'BN. N.W.I.	9009	10 13	0 13 56.21	22 35 06	37 11				434013
10386	MAUI'BN. HAWAII	9012	10 13	5 34 27.33	22 12 18	-20 39				434013
10387	MAUI'BN. HAWAII	9012	10 13	7 25 46.60	19 23 36	0 29				434013
10372	TOKYO'BN. JAPAN	9005	10 13	10 59 08.20	20 20 42	-23 09				434023
50011	LAREDO'RADAR, TEX.	4012	10 13	19 27 40.5			146 48 00	72 12 00	741	895307
10368	CURACAO'BN. N.W.I.	9009	10 13	23 29 43.88	22 23 42	44 18				434013
10367	CURACAO'BN. N.W.I.	9009	10 14	1 21 34.29	19 12 54	19 20				434013
10385	MAUI'BN. HAWAII	9012	10 14	6 44 31.46	20 33 30	-6 58				434013
10382	VILLA DOLORES'BN. ARG	9011	10 14	7 23 51.25	7 16 12	-35 23				434023
10373	NAINI TAL'BN. INDIA	9006	10 14	13 50 13.15	20 43 36	-10 09				434013
10377	SHIRAZ'BN. IRAN	9008	10 14	15 35 11.83	18 57 18	0 03				434013
10378	SHIRAZ'BN. IRAN	9008	10 14	15 35 32.84	19 12 06	-1 25				434013
10379	SHIRAZ'BN. IRAN	9008	10 14	15 35 56.13	19 28 12	-3 15				434013
10374	NAINI TAL'BN. INDIA	9006	10 14	15 43 32.14	19 51 18	-26 07				434023
10370	WOOMERA'BN. AUSTR.	9003	10 14	18 09 17.98	5 27 30	-46 44				434023
10381	CURACAO'BN. N.W.I.	9009	10 15	0 41 44.72	21 38 06	5 41				434013
10389	MAUI'BN. HAWAII	9012	10 15	6 02 22.02	21 33 30	-10 35				434013
10383	VILLA DOLORES'BN. ARG	9011	10 15	6 40 35.84	6 41 30	-33 32				434023
10384	VILLA DOLORES'BN. ARG	9011	10 15	8 30 50.70	1 48 12	-28 07				434023
10375	NAINI TAL'BN. INDIA	9006	10 15	13 06 42.65	20 50 18	-5 56				434013
10380	SHIRAZ'BN. IRAN	9008	10 15	14 52 13.70	19 18 06	0 43				434013
10376	NAINI TAL'BN. INDIA	9006	10 15	15 00 37.65	20 00 24	-28 24				434023
10370	WOOMERA'BN. AUSTR.	9003	10 15	17 25 36.36	4 34 54	-44 34				434023
50010	LAREDO'RADAR, TEX.	4012	10 15	18 01 36.5			150 00 00	35 18 00	797	895307
10390	MAUI'BN. HAWAII	9012	10 16	7 12 14.58	20 11 00	-30 09				434023
50009	LAREDO'RADAR, TEX.	4012	10 16	17 18 23.3			149 12 00	22 48 00	972	895307
10371	WOOMERA'BN. AUSTR.	9003	10 16	18 37 19.24	7 00 48	-32 18				434023
10391	JUPITER'BN. FLA.	9010	10 17	1 03 11.22	19 48 00	-28 33				434023
10394	SHIRAZ'BN. IRAN	9008	10 17	15 20 21.88	19 36 12	-25 44				434023
10392	WOOMERA'BN. AUSTR.	9003	10 17	17 52 36.77	4 46 18	-41 39				434023
10393	WOOMERA'BN. AUSTR.	9003	10 19	10 35 02.24	23 31 18	34 15				434013
50012	LAREDO'RADAR, TEX.	4012	10 19	17 01 52.5			148 24 00	52 30 00	470	895307
10395	WOOMERA'BN. AUSTR.	9003	10 19	18 19 25.53	5 04 42	-21 39				434013
10396	AREQUIPA'BN. PERU	9007	10 20	0 57 45.83	23 57 06	-2 48				434013
10397	AREQUIPA'BN. PERU	9007	10 20	8 42 53.97	7 04 00	-66 30				434023
10398	WOOMERA'BN. AUSTR.	9003	10 20	17 35 05.71	4 29 48	-29 35				434023
10400	AREQUIPA'BN. PERU	9007	10 21	0 11 02.17	23 39 18	16 49				434013
10401	AREQUIPA'BN. PERU	9007	10 21	2 05 10.81	21 04 30	-20 06				434013
10399	WOOMERA'BN. AUSTR.	9003	10 21	11 03 01.87	0 01 36	13 42				434013
50015	LAREDO'RADAR, TEX.	4012	10 21	15 34 54.0			149 30 00	22 54 00	820	895307
10402	WOOMERA'BN. AUSTR.	9003	10 21	16 52 25.33	5 59 36	-25 24				434023
10403	WOOMERA'BN. AUSTR.	9003	10 21	18 45 31.15	4 42 24	5 39				434013
10409	AREQUIPA'BN. PERU	9007	10 22	1 22 11.32	22 08 06	-24 32				434023
10410	AREQUIPA'BN. PERU	9007	10 22	7 15 20.09	7 49 06	-59 44				434023
10404	WOOMERA'BN. AUSTR.	9003	10 22	10 17 31.70	23 22 42	21 12				434013
10405	WOOMERA'BN. AUSTR.	9003	10 22	12 11 18.35	22 39 42	-1 36				434013
30078	PRETORIA, S.AFR.	6575	10 22	17 26 31.5			33 24	41 00		845303
10406	WOOMERA'BN. AUSTR.	9003	10 22	18 01 04.32	4 19 18	-5 12				434013
50016	LAREDO'RADAR, TEX.	4012	10 22	18 38 09.8			2 18 00	31 36 00	800	895307
50017	LAREDO'RADAR, TEX.	4012	10 22	20 32 11.3			21 30 00	60 12 00	745	895307
50018	LAREDO'RADAR, TEX.	4012	10 22	22 26 11.0			202 42 00	49 06 00	1175	895307
10411	AREQUIPA'BN. PERU	9007	10 23	0 36 55.50	21 43 24	-13 39				434013
10412	AREQUIPA'BN. PERU	9007	10 23	8 25 37.48	6 41 12	-36 42				434023
10407	WOOMERA'BN. AUSTR.	9003	10 23	11 27 59.29	23 21 18	-2 07				434013
10408	WOOMERA'BN. AUSTR.	9003	10 23	17 17 11.92	4 38 36	-10 28				434013
10418	AREQUIPA'BN. PERU	9007	10 23	23 54 01.70	23 00 00	-15 57				434013
10414	VILLA DOLORES'BN. ARG	9011	10 23	23 56 44.06	23 00 48	12 43				434013
10419	AREQUIPA'BN. PERU	9007	10 24	1 48 09.65	21 23 00	-48 31				434023
10420	AREQUIPA'BN. PERU	9007	10 24	7 39 53.74	4 56 48	-52 20				434023
10415	VILLA DOLORES'BN. ARG	9011	10 24	7 40 05.93	3 46 30	10 09				434013
10413	WOOMERA'BN. AUSTR.	9003	10 24	10 42 42.04	22 50 48	5 44				434013
10416	WOOMERA'BN. AUSTR.	9003	10 24	12 38 35.20	23 33 48	-27 25				434023
50019	LAREDO'RADAR, TEX.	4012	10 24	17 10 28.5			357 24 00	30 00 00	670	895307
10417	WOOMERA'BN. AUSTR.	9003	10 24	18 26 13.94	3 41 12	14 43				434013
50020	LAREDO'RADAR, TEX.	4012	10 24	19 04 15.0			13 12 00	37 24 00	691	895307
10421	AREQUIPA'BN. PERU	9007	10 25	1 01 47.08	20 13 24	-35 43				434023
10423	VILLA DOLORES'BN. ARG	9011	10 25	1 02 50.49	20 31 18	4 22				434013
10424	VILLA DOLORES'BN. ARG	9011	10 25	1 12 34.05	2 38 18	-22 12				434013
10422	AREQUIPA'BN. PERU	9007	10 25	8 50 44.38	4 39 42	2 32				434013
10425	WOOMERA'BN. AUSTR.	9003	10 25	11 54 43.13	0 10 12	-26 10				434023

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10428	AREQUIPA'BN, PERU	9007	10 26	8 06 21.17	4 54 00	- 7 51				434023
10426	WOOMERA'BN, AUSTR.	9003	10 26	11 07 51.36	22 28 24	-14 57				434013
10427	WOOMERA'BN, AUSTR.	9003	10 26	13 04 18.31	0 00 48	-39 22				434023
10432	OLIFANTSFNTN'BN,S.AF	9002	10 26	18 16 41.80	21 33 48	-28 42				434023
10433	OLIFANTSFNTN'BN,S.AF	9002	10 26	20 13 16.50	22 56 30	-52 50				434023
10434	OLIFANTSFNTN'BN,S.AF	9002	10 27	2 01 43.70	3 17 18	24 08				434013
10429	WOOMERA'BN, AUSTR.	9003	10 27	10 22 27.73	21 59 24	- 6 59				434013
10430	WOOMERA'BN, AUSTR.	9003	10 27	12 18 43.96	23 21 30	-36 56				434023
10435	OLIFANTSFNTN'BN,S.AF	9002	10 27	17 32 32.01	22 11 36	-27 10				434023
10436	OLIFANTSFNTN'BN,S.AF	9002	10 27	19 27 59.06	22 36 00	-51 45				434023
50021	LAREDO'RADAR, TEX.	4012	10 27	20 39 04.5			202 00 00	32 00 00	975	895307
10431	AREQUIPA'BN, PERU	9007	10 28	8 31 09.31	3 44 24	22 43				434013
10437	WOOMERA'BN, AUSTR.	9003	10 28	13 26 54.02	22 18 54	-35 50				434023
10438	CURACAO'BN, N.W.I.	9009	10 29	7 52 04.38	7 49 00	-40 48				434023
10440	MAUI'BN, HAWAII	9012	10 29	15 09 23.51	8 59 30	-22 22				434013
50022	LAREDO'RADAR, TEX.	4012	10 29	17 17 08			15 00	31 54	630	895307
10439	CURACAO'BN, N.W.I.	9009	10 30	9 01 14.19	6 53 48	5 40				434013
10441	WOOMERA'BN, AUSTR.	9003	10 30	11 57 28.35	22 36 30	-40 22				434023
10442	WOOMERA'BN, AUSTR.	9003	10 31	11 13 47.69	0 06 30	-40 26				434023
50023	LAREDO'RADAR, TEX.	4012	10 31	13 54 30.0			355 18 00	51 36 00	710	895307
10443	OLIFANTSFNTN'BN,S.AF	9002	10 31	18 21 46.73	21 55 06	-56 55				434023
10444	NAINI TAL'BN, INDIA	9006	10 31	22 39 56.33	8 29 42	-31 34				434023
10446	WOOMERA'BN, AUSTR.	9003	11 01	12 22 32.86	23 43 42	-37 36				434023
50024	LAREDO'RADAR, TEX.	4012	11 01	15 03 44			5 06	32 06	820	895307
10445	OLIFANTSFNTN'BN,S.AF	9002	11 01	19 32 28.30	23 53 18	-53 36				434023
10447	CURACAO'BN, N.W.I.	9009	11 02	8 41 47.27	5 45 48	41 22				434013
50025	LAREDO'RADAR, TEX.	4012	11 02	12 24 54.5			6 36	79 42	834	895307
50026	LAREDO'RADAR, TEX.	4012	11 02	14 18 44			2 12	37 12	876	895307
50027	LAREDO'RADAR, TEX.	4012	11 02	16 12 46			21 18	44 24	561	895307
10449	NAINI TAL'BN, INDIA	9006	11 02	23 05 01.35	8 17 48	- 7 53				434013
10448	SAN FERNANDO'BN, SP.	9004	11 03	4 27 00.50	8 28 30	-24 50				434023
10453	JUPITER'BN, FLA.	9010	11 03	9 48 33.67	6 03 54	- 2 48				434013
10454	JUPITER'BN, FLA.	9010	11 03	9 49 22.28	6 56 18	3 09				434013
10455	JUPITER'BN, FLA.	9010	11 03	9 50 57.57	9 02 54	15 00				434013
10450	WOOMERA'BN, AUSTR.	9003	11 03	10 50 54.82	22 32 42	-42 15				434023
50028	LAREDO'RADAR, TEX.	4012	11 03	11 39 44			118 12	84 24	968	895307
10451	WOOMERA'BN, AUSTR.	9003	11 03	12 46 43.24	0 06 36	-23 00				434023
10459	MAUI'BN, HAWAII	9012	11 03	15 12 19.67	5 28 06	41 23				434013
10456	OLIFANTSFNTN'BN,S.AF	9002	11 03	19 56 24.80	0 01 48	-39 42				434023
10457	SHIRAZ'BN, IRAN	9008	11 04	0 06 57.82	7 36 42	-14 08				434013
10452	NAINI TAL'BN, INDIA	9006	11 04	0 12 45.56	6 13 42	21 18				434013
10458	SHIRAZ'BN, IRAN	9008	11 04	2 01 01.47	7 23 42	28 34				434013
10466	WOOMERA'BN, AUSTR.	9003	11 04	10 04 48.99	21 29 00	-43 02				434023
10465	WOOMERA'BN, AUSTR.	9003	11 04	12 00 39.93	23 32 48	-28 37				434023
50029	LAREDO'RADAR, TEX.	4012	11 04	12 48 51.5			357 24	53 00	973	895307
50030	LAREDO'RADAR, TEX.	4012	11 04	14 43 05			12 42	40 12	804	895307
10460	OLIFANTSFNTN'BN,S.AF	9002	11 04	17 14 34.67	21 30 18	-62 21				434023
10461	OLIFANTSFNTN'BN,S.AF	9002	11 04	19 11 01.95	0 16 24	-43 47				434023
10470	SHIRAZ'BN, IRAN	9008	11 05	1 15 52.49	7 27 24	21 14				434013
10473	VILLA DOLORES'BN, ARG	9011	11 05	2 23 30.63	23 22 18	-10 17				434013
10463	TOKYO'BN, JAPAN	9005	11 05	19 09 56.60	7 44 18	- 4 14				434013
10469	NAINI TAL'BN, INDIA	9006	11 05	22 43 52.73	8 27 18	19 16				434013
10471	JUPITER'BN, FLA.	9010	11 06	9 28 18.44	7 20 12	34 28				434013
10472	JUPITER'BN, FLA.	9010	11 06	9 30 21.71	10 22 48	37 58				434013
10468	WOOMERA'BN, AUSTR.	9003	11 06	10 28 08.41	21 51 06	-38 59				434023
10467	WOOMERA'BN, AUSTR.	9003	11 06	12 23 43.43	23 23 00	- 9 30				434013
10474	MAUI'BN, HAWAII	9012	11 06	14 50 25.28	4 40 00	55 14				434013
10464	TOKYO'BN, JAPAN	9005	11 06	18 24 14.80	7 12 54	- 7 13				434013
10462	OLIFANTSFNTN'BN,S.AF	9002	11 06	19 34 16.40	23 59 30	-21 59				434013
10477	SHIRAZ'BN, IRAN	9008	11 06	23 46 36.30	8 51 24	15 06				434013
10475	CURACAO'BN, N.W.I.	9009	11 07	8 44 00.38	3 44 54	71 15				434013
10476	JUPITER'BN, FLA.	9010	11 07	10 35 51.61	5 16 06	49 48				434013
10479	JUPITER'BN, FLA.	9010	11 07	10 37 02.38	7 19 00	61 49				434013
10480	JUPITER'BN, FLA.	9010	11 07	10 37 23.44	8 14 54	63 42				434013
10703	MAUI'BN, HAWAII	9012	11 07	14 06 11.83	7 17 24	60 27				434013
10482	TOKYO'BN, JAPAN	9005	11 07	19 32 38.00	7 18 12	12 12				434013
10476	NAINI TAL'BN, INDIA	9006	11 07	23 05 44.27	6 39 18	38 20				434013
10512	VILLA DOLORES'BN, ARG	9011	11 08	0 04 40.99	21 03 18	-26 47				434023
10483	JUPITER'BN, FLA.	9010	11 08	9 51 00.37	6 39 42	53 57				434013
10484	JUPITER'BN, FLA.	9010	11 08	9 53 30.67	11 22 00	50 28				434013
10481	WOOMERA'BN, AUSTR.	9003	11 08	10 51 12.24	22 14 12	-22 00				434013
10485	MAUI'BN, HAWAII	9012	11 08	15 13 42.09	4 21 06	68 01				434013
10489	VILLA DOLORES'BN, ARG	9011	11 09	1 15 09.20	23 10 48	4 10				434013
10491	WOOMERA'BN, AUSTR.	9003	11 09	10 07 09.02	0 00 42	-17 49				434013
10486	ORGAN PASS'BN, N.M.	9001	11 09	10 57 55.96	7 02 30	25 28				434013
10492	WOOMERA'BN, AUSTR.	9003	11 09	12 00 25.59	22 58 36	7 40				434013
10487	ORGAN PASS'BN, N.M.	9001	11 09	12 47 55.99	9 13 48	38 14				434013
10493	MAUI'BN, HAWAII	9012	11 09	14 28 50.34	6 54 00	73 03				434013
10488	NAINI TAL'BN, INDIA	9006	11 09	23 29 29.14	9 57 30	53 01				434013

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10522	VILLA DOLORES'BN, ARG	9011	11 10	2 21 10.20	22 00 30	14 31				434013
10510	JUPITER'BN, FLA.	9010	11 10	10 13 13.47	6 14 36	59 38				434013
10511	JUPITER'BN, FLA.	9010	11 10	10 14 28.03	9 01 54	63 09				434013
10495	WOOMERA'BN, AUSTR.	9003	11 10	11 14 03.92	22 37 00	3 20				434013
10490	ORGAN PASS'BN, N.M.	9001	11 10	11 58 32.90	4 36 18	25 05				434013
10500	TOKYO'BN, JAPAN	9005	11 10	19 09 12.70	7 14 30	21 06				434013
30087	MITAKA, JAPAN	0229	11 10	19 09 36.1			177 24	75 36		845303
10501	MAINI TAL'BN, INOIA	9006	11 10	22 42 33.71	7 07 00	48 40				434013
10507	SHIRAZ'BN, IRAN	9008	11 11	0 29 45.77	6 47 42	46 55				434013
10513	VILLA DOLORES'BN, ARG	9011	11 11	1 34 29.04	23 15 42	10 48				434013
30088	MITAKA, JAPAN	0229	11 11	18 23 08.1			174 00	74 48		845303
10700	TOKYO'BN, JAPAN	9005	11 11	18 23 27.10	7 26 00	21 04				434013
10502	MAINI TAL'BN, INOIA	9006	11 11	21 59 09.12	10 11 18	36 37				434013
10503	MAINI TAL'BN, INOIA	9006	11 11	23 50 52.28	7 56 24	50 33				434013
10498	SAN FERNANDO'BN, SP.	9004	11 12	5 12 08.60	8 17 30	16 50				434013
30079	DENVER, COLO.	8582	11 12	10 29 10.5			180 00	56 30		845303
30080	CINCINNATI, OHIO	0050	11 12	10 34 31.6	8 07 54	4 37				845004
10496	WOOMERA'BN, AUSTR.	9003	11 12	11 35 48.15	22 11 24	21 36				434013
10704	MAINI TAL'BN, INOIA	9006	11 12	23 06 07.27	10 09 48	44 33				434013
10514	VILLA DOLORES'BN, ARG	9011	11 13	0 04 25.43	22 10 18	17 00				434013
10505	AREQUIPA'BN, PERU	9007	11 13	0 06 06.78	1 26 18	-26 30				434023
10508	SHIRAZ'BN, IRAN	9008	11 13	1 52 05.35	7 58 24	49 25				434013
10506	AREQUIPA'BN, PERU	9007	11 13	1 57 27.11	21 50 42	0 27				434013
10499	SAN FERNANDO'BN, SP.	9004	11 13	4 25 05.50	7 14 18	19 57				434013
30081	CINCINNATI, OHIO	0050	11 13	7 59 08	10 07 48	6 07				845004
10497	WOOMERA'BN, AUSTR.	9003	11 13	10 49 19.75	21 48 48	19 27				434013
10515	MAUI'BN, HAWAII	9012	11 13	15 13 37.82	9 36 48	72 24				434013
10517	TOKYO'BN, JAPAN	9005	11 13	18 43 59.30	6 40 30	22 55				434013
10504	MAINI TAL'BN, INOIA	9006	11 13	22 20 42.74	10 24 42	39 31				434013
10536	SHIRAZ'BN, IRAN	9008	11 14	0 05 28.30	7 40 36	48 27				434013
10516	SAN FERNANDO'BN, SP.	9004	11 14	5 32 54.60	7 50 24	8 09				434013
10520	JUPITER'BN, FLA.	9010	11 14	9 02 29.22	7 08 48	57 36				434013
10521	JUPITER'BN, FLA.	9010	11 14	9 05 14.66	10 47 12	44 39				434013
10509	CURACAO'BN, N.W.I.	9009	11 14	9 05 15.26	5 19 30	82 21				434013
30082	SACRAMENTO, CAL.	8517	11 14	12 40 50.2			180 00	56 20		841304
10527	MAUI'BN, HAWAII	9012	11 14	14 25 03.63	5 24 06	70 50				434013
10518	TOKYO'BN, JAPAN	9005	11 14	19 52 37.80	8 15 06	6 03				434013
10519	MAINI TAL'BN, INOIA	9006	11 14	23 25 14.39	7 17 00	42 24				434013
10528	SAN FERNANDO'BN, SP.	9004	11 15	4 45 59.80	7 18 18	14 24				434013
10523	CURACAO'BN, N.W.I.	9009	11 15	8 18 55.00	7 57 00	83 22				434013
10524	JUPITER'BN, FLA.	9010	11 15	10 06 43.69	4 04 30	38 02				434013
10525	JUPITER'BN, FLA.	9010	11 15	10 10 47.57	8 21 48	45 41				434013
10526	JUPITER'BN, FLA.	9010	11 15	10 14 31.74	12 13 18	16 58				434013
30083	ALBUQUERQUE, N.M.	8579	11 15	11 58 20.2			180 00	62 42		845303
30084	DENVER, COLO.	8592	11 15	11 58 40.5			180 00	41 45 00		845303
10529	TOKYO'BN, JAPAN	9005	11 15	19 05 27.80	7 32 42	14 04				434013
10532	SHIRAZ'BN, IRAN	9008	11 16	0 26 06.83	7 33 36	42 39				434013
10530	SAN FERNANDO'BN, SP.	9004	11 16	5 53 27.00	7 43 24	-6 04				434013
30085	ALBUQUERQUE, N.M.	8579	11 16	11 11 00.7			180 00	70 34		845303
30086	DENVER, COLO.	8592	11 16	11 11 32.8			180 00	49 45 00		845303
10533	MAINI TAL'BN, INOIA	9006	11 16	21 56 10.14	11 00 30	22 20				434013
10534	MAINI TAL'BN, INOIA	9006	11 16	23 48 25.93	10 00 06	6 05				434013
10535	JUPITER'BN, FLA.	9010	11 17	10 32 20.16	9 11 06	14 41				434013
10537	MAINI TAL'BN, INOIA	9006	11 17	22 01 50.38	10 01 36	12 12				434013
10538	SHIRAZ'BN, IRAN	9008	11 18	0 46 54.49	7 58 36	24 16				434013
10542	SAN FERNANDO'BN, SP.	9004	11 18	4 19 49.40	7 29 42	5 53				434013
10550	MAUI'BN, HAWAII	9012	11 18	15 08 24.56	8 56 00	42 20				434013
10544	MAINI TAL'BN, INOIA	9006	11 19	0 06 24.69	7 32 18	-4 42				434013
10547	CURACAO'BN, N.W.I.	9009	11 19	8 58 15.12	5 09 48	65 01				434013
10539	ORGAN PASS'BN, N.M.	9001	11 19	10 44 02.60	7 28 42	15 49				434013
10540	ORGAN PASS'BN, N.M.	9001	11 19	12 38 21.59	7 35 48	-17 39				434013
10543	TOKYO'BN, JAPAN	9005	11 19	19 45 58.90	7 34 30	-17 38				434013
10545	MAINI TAL'BN, INOIA	9006	11 19	23 19 10.65	7 29 36	3 28				434013
10548	CURACAO'BN, N.W.I.	9009	11 20	0 25 07.01	0 30 48	-13 37				434013
10546	SHIRAZ'BN, IRAN	9008	11 20	1 06 20.35	12 15 00	3 40				434013
10549	JUPITER'BN, FLA.	9010	11 20	10 05 31.65	8 43 12	-5 12				434013
10541	ORGAN PASS'BN, N.M.	9001	11 20	11 47 45.50	5 22 00	3 43				434013
10551	MAUI'BN, HAWAII	9012	11 20	13 34 30.49	9 34 24	44 39				434013
10552	MAUI'BN, HAWAII	9012	11 20	15 28 24.15	8 11 06	10 19				434013
10554	CURACAO'BN, N.W.I.	9009	11 20	23 37 59.56	0 47 42	-24 40				434023
10553	SHIRAZ'BN, IRAN	9008	11 21	0 18 51.68	7 03 42	11 04				434013
10557	JUPITER'BN, FLA.	9010	11 21	9 16 40.25	7 29 12	12 38				434013
10558	JUPITER'BN, FLA.	9010	11 21	9 17 08.26	7 52 00	10 00				434013
10559	JUPITER'BN, FLA.	9010	11 21	9 19 25.73	9 32 48	-3 11				434013
10555	CURACAO'BN, N.W.I.	9009	11 21	9 22 07.84	9 15 24	36 17				434013
30089	PUEBLA, MEX.	0900	11 21	11 07 18.2	8 39 24	17 40				845043
10556	MAINI TAL'BN, INOIA	9006	11 21	23 38 09.15	6 43 18	-13 02				434013
10561	JUPITER'BN, FLA.	9010	11 22	0 43 53.02	1 05 42	-31 32				434023
10560	ORGAN PASS'BN, N.M.	9001	11 22	12 09 18.17	6 30 06	-19 34				434013
10565	JUPITER'BN, FLA.	9010	11 22	23 57 06.34	1 19 30	-33 51				434023
10566	JUPITER'BN, FLA.	9010	11 22	23 58 08.67	1 52 30	-27 00				434023

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10562	SHIRAZ'BN, IRAN	9008	11 23	0 38 22.55	6 51 54	-9 58				434013
30090	PUEBLA, MEX.	0900	11 23	1 44 14.5	23 37 24	-22 49				845043
30091	EOIMBURG, TEX.	0066	11 23	1 45 57.2			156	32		845303
30092	EOIMBURG, TEX.	0066	11 23	1 46 31.3			148	33 10		845303
10567	JUPITER'BN, FLA.	9010	11 23	9 33 56.33	5 49 00	1 20				434013
10568	JUPITER'BN, FLA.	9010	11 23	9 35 36.16	6 48 18	-6 00				434013
10564	CURACAO'BN, N.W.I.	9009	11 23	9 40 49.90	7 35 06	5 22				434013
10563	ORGAN PASS'BN, N.M.	9001	11 23	11 22 33.92	6 44 06	-18 36				434013
10570	NAINI TAL'BN, INOIA	9006	11 23	14 17 22.97	22 51 48	-26 56				434023
10571	NAINI TAL'BN, INOIA	9006	11 23	22 06 44.86	8 16 36	-13 12				434013
10573	JUPITER'BN, FLA.	9010	11 25	0 14 51.55	23 41 36	-28 47				434023
10574	JUPITER'BN, FLA.	9010	11 25	0 16 56.06	1 26 54	-12 50				434013
10572	CURACAO'BN, N.W.I.	9009	11 25	0 17 27.38	22 46 06	54 43				434013
10575	JUPITER'BN, FLA.	9010	11 25	0 17 50.39	2 05 42	-6 18				434013
10578	JUPITER'BN, FLA.	9010	11 25	9 55 24.72	6 52 00	-30 00				434023
10579	JUPITER'BN, FLA.	9010	11 25	9 56 33.69	7 26 36	-35 19				434023
10576	ORGAN PASS'BN, N.M.	9001	11 25	11 41 53.50	6 39 00	-32 19				434023
10580	MAUI'BN, HAWAII	9012	11 25	15 19 39.65	7 04 42	-31 42				434023
10581	MAUI'BN, HAWAII	9012	11 26	4 51 34.27	0 57 18	3 28				434013
10582	MAUI'BN, HAWAII	9012	11 26	14 31 54.51	7 09 30	-26 59				434023
10583	ORGAN PASS'BN, N.M.	9001	11 30	1 52 48.69	23 29 00	-2 00				434013
10584	NAINI TAL'BN, INOIA	9006	11 30	12 33 31.64	23 26 12	-9 58				434013
10586	NAINI TAL'BN, INOIA	9006	12 01	13 40 36.50	1 36 18	39 37				434013
10585	SAN FERNANDO'BN, SP.	9004	12 01	19 00 35.50	23 56 36	-7 32				434013
10588	NAINI TAL'BN, INOIA	9006	12 02	12 51 42.84	23 39 42	28 17				434013
10587	SAN FERNANDO'BN, SP.	9004	12 02	18 12 43.30	23 41 36	-17 17				434013
30093	SACRAMENTO, CAL.	B590	12 04	2 24 48.4	22 56 30	-12 59				845013
10591	NAINI TAL'BN, INOIA	9006	12 05	14 12 53.65	20 38 48	46 24				434013
10589	WOOMERA'BN, AUSTR.	9003	12 05	18 34 20.63	9 58 48	-2 33				434013
10592	WOOMERA'BN, AUSTR.	9003	12 06	17 45 08.72	9 35 48	2 55				434013
30094	SACRAMENTO, CAL.	B517	12 08	2 58 21.4			180 00	45 14		641304
30095	HIGASHIMATSUYAMA, JAP	0210	12 08	8 18 34.5			180 00	62 06		845302
10593	JUPITER'BN, FLA.	9010	12 11	0 28 04.36	21 32 30	44 02				434013
50032	LAREDO RADAR, TEXAS	4012	12 12	21 06 09.00			0 42 00	47 36 00	468	895307
50031	LAREDO RADAR, TEXAS	4012	12 13	20 14 46.5			256 48 00	16 54 00	1045	895307
10594	WOOMERA'BN, AUSTR.	9003	12 14	16 47 56.45	6 17 30	-25 06				434023
10595	WOOMERA'BN, AUSTR.	9003	12 14	16 49 31.24	7 36 24	-30 29				434023
10596	WOOMERA'BN, AUSTR.	9003	12 14	18 44 41.42	8 38 48	-40 07				434023
10597	WOOMERA'BN, AUSTR.	9003	12 14	18 45 46.63	9 44 06	-39 50				434023
50033	LAREDO RADAR, TEX.	4012	12 15	1 07 37.5			187 36	59 24	720	895307
10598	VILLA OLORES'BN, ARG	9011	12 15	5 14 36.50	6 31 06	-13 15				434013
10599	VILLA OLORES'BN, ARG	9011	12 15	5 14 40.50	6 34 24	-13 31				434013
10600	VILLA OLORES'BN, ARG	9011	12 15	5 14 53.17	6 43 30	-14 20				434013
10621	SHIRAZ'BN, IRAN	9008	12 16	14 36 32.86	21 59 00	-22 54				434013
10622	SHIRAZ'BN, IRAN	9008	12 16	14 36 41.26	22 14 54	-24 23				434023
10623	SHIRAZ'BN, IRAN	9008	12 16	14 36 48.63	22 33 06	-25 57				434023
10607	WOOMERA'BN, AUSTR.	9003	12 16	17 01 58.54	6 07 54	-34 58				434023
10601	ORGAN PASS'BN, N.M.	9001	12 17	1 18 45.00	21 34 24	-32 29				434023
10633	MAUI'BN, HAWAII	9012	12 17	4 55 54.37	22 36 06	7 26				434013
10634	MAUI'BN, HAWAII	9012	12 17	4 56 22.48	23 55 18	-2 04				434013
10627	VILLA OLORES'BN, ARG	9011	12 17	5 29 26.34	7 08 00	-30 20				434023
10628	VILLA OLORES'BN, ARG	9011	12 17	5 32 16.74	9 32 00	-30 20				434023
10629	VILLA OLORES'BN, ARG	9011	12 17	5 34 52.68	10 59 00	-25 10				434023
10630	VILLA OLORES'BN, ARG	9011	12 17	7 22 10.08	6 13 24	-33 21				434023
10610	AREQUIPA'BN, PERU	9007	12 17	7 22 19.34	7 14 54	-73 41				434023
10611	AREQUIPA'BN, PERU	9007	12 17	7 22 27.40	7 28 54	-73 54				434023
10612	AREQUIPA'BN, PERU	9007	12 17	7 22 35.45	7 43 12	-74 00				434023
10631	VILLA OLORES'BN, ARG	9011	12 17	7 23 24.97	7 14 00	-36 07				434023
10632	VILLA OLORES'BN, ARG	9011	12 17	7 26 02.46	9 40 18	-34 55				434023
10608	WOOMERA'BN, AUSTR.	9003	12 17	14 13 45.73	7 56 30	-37 13				434023
10609	WOOMERA'BN, AUSTR.	9003	12 17	18 08 30.46	8 42 30	-37 49				434023
10613	AREQUIPA'BN, PERU	9007	12 18	6 27 16.16	2 37 48	-53 19				434023
10614	AREQUIPA'BN, PERU	9007	12 18	6 32 04.71	7 48 12	-74 33				434023
10615	AREQUIPA'BN, PERU	9007	12 18	8 29 43.23	11 35 48	-62 47				434023
10616	AREQUIPA'BN, PERU	9007	12 18	8 32 01.43	13 10 54	-49 23				434023
10604	OLIFANTSFNTN'BN, S.A.F	9002	12 18	22 29 10.14	5 07 06	-47 22				434023
10605	OLIFANTSFNTN'BN, S.A.F	9002	12 18	22 31 04.42	7 28 54	-51 06				434023
10606	OLIFANTSFNTN'BN, S.A.F	9002	12 18	22 32 03.10	8 33 00	-49 25				434023
10624	CURACAO'BN, N.W.I.	9009	12 18	23 51 47.04	23 43 08	-30 51				434023
10625	CURACAO'BN, N.W.I.	9009	12 18	23 51 54.98	23 58 36	-32 52				434023
10626	CURACAO'BN, N.W.I.	9009	12 18	23 52 12.45	0 32 12	-36 39				434023
10617	AREQUIPA'BN, PERU	9007	12 19	5 38 54.03	3 25 12	-67 09				434023
10635	VILLA OLORES'BN, ARG	9011	12 19	5 39 18.43	3 56 36	-25 06				434023
10618	AREQUIPA'BN, PERU	9007	12 19	5 40 24.49	5 37 24	-74 00				434023
10619	AREQUIPA'BN, PERU	9007	12 19	5 42 36.71	9 36 00	-70 52				434023

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INCL
10636	VILLA DOLORES*BN*ARG	9011	12 19	5 43 31.24	7 40 30	-37 30				434023
10637	VILLA DOLORES*BN*ARG	9011	12 19	5 50 43.03	11 57 36	-17 30				434013
10620	AREQUIPA*BN, PERU	9007	12 19	7 37 59.89	10 25 36	-68 29				434023
10638	VILLA DOLORES*BN*ARG	9011	12 19	7 39 51.00	8 48 36	-25 26				434023
10639	WOOMERA*BN, AUSTR.	9003	12 19	16 26 46.69	7 30 12	-41 08				434023
10640	WOOMERA*BN, AUSTR.	9003	12 19	16 28 03.82	8 48 42	-39 05				434023
50034	LAREDO*RAOAR, TEX.	4012	12 19	17 13 47.3			140 36 00	63 36 00	788	895307
10643	VILLA DOLORES*BN*ARG	9011	12 20	4 48 45.54	3 21 24	-21 19				434013
10641	AREQUIPA*BN, PERU	9007	12 20	4 49 09.33	4 08 54	-72 20				434023
10642	AREQUIPA*BN, PERU	9007	12 20	4 49 17.32	4 24 00	-72 53				434023
10644	VILLA DOLORES*BN*ARG	9011	12 20	4 52 17.28	6 37 30	-35 27				434023
10645	VILLA DOLORES*BN*ARG	9011	12 20	4 57 14.20	10 26 48	-25 40				434023
10646	VILLA DOLORES*BN*ARG	9011	12 20	6 42 52.17	4 23 30	-27 20				434023
10647	VILLA DOLORES*BN*ARG	9011	12 20	6 48 08.06	8 38 48	-32 28				434023
10648	VILLA DOLORES*BN*ARG	9011	12 20	6 51 16.92	10 56 36	-20 35				434013
10649	VILLA DOLORES*BN*ARG	9011	12 21	4 01 35.77	6 05 18	-31 27				434023
10650	VILLA DOLORES*BN*ARG	9011	12 21	7 51 48.25	8 35 48	-15 29				434013
10651	OLIFANTSFNTN*BN*S.AF	9002	12 22	1 45 52.68	10 18 30	-17 25				434013
10652	OLIFANTSFNTN*BN*S.AF	9002	12 22	1 47 45.08	11 27 30	-7 34				434013
10653	WOOMERA*BN, AUSTR.	9003	12 22	13 53 56.14	5 02 00	-32 42				434023
10654	WOOMERA*BN, AUSTR.	9003	12 22	15 49 15.82	7 07 30	-40 40				434023
10655	WOOMERA*BN, AUSTR.	9003	12 22	17 44 54.99	8 38 30	-17 15				434013
50035	LAREDO*RAOAR, TEX.	4012	12 22	18 31 10.0			3 42 00	40 48 00	880	895307
10656	OLIFANTSFNTN*BN*S.AF	9002	12 22	19 06 01.02	2 02 24	6 20				434013
10657	OLIFANTSFNTN*BN*S.AF	9002	12 22	19 08 13.47	5 00 48	-14 21				434013
10660	OLIFANTSFNTN*BN*S.AF	9002	12 22	22 56 41.76	6 08 00	-58 52				434023
10661	OLIFANTSFNTN*BN*S.AF	9002	12 22	22 58 21.12	8 32 24	-54 42				434023
10664	VILLA DOLORES*BN*ARG	9011	12 23	4 13 48.75	4 53 30	-37 15				434023
10665	VILLA DOLORES*BN*ARG	9011	12 23	4 15 59.30	7 36 06	-36 52				434023
10667	WOOMERA*BN, AUSTR.	9003	12 23	13 03 31.15	4 42 54	-25 14				434023
10668	WOOMERA*BN, AUSTR.	9003	12 23	16 53 45.93	8 07 42	-24 35				434023
10683	OLIFANTSFNTN*BN*S.AF	9002	12 23	22 05 50.70	5 28 24	-61 42				434023
10684	OLIFANTSFNTN*BN*S.AF	9002	12 23	22 07 55.19	8 41 18	-54 32				434023
10685	OLIFANTSFNTN*BN*S.AF	9002	12 24	0 01 27.37	7 42 00	-44 11				434023
10686	OLIFANTSFNTN*BN*S.AF	9002	12 24	0 03 17.20	9 28 24	-35 38				434023
10672	VILLA DOLORES*BN*ARG	9011	12 24	1 29 11.14	3 35 12	3 42				434013
10673	VILLA DOLORES*BN*ARG	9011	12 24	1 33 49.35	7 48 36	-14 22				434013
10676	VILLA DOLORES*BN*ARG	9011	12 24	5 18 21.95	6 32 48	-33 57				434023
10677	VILLA DOLORES*BN*ARG	9011	12 24	5 22 36.80	10 03 30	-17 10				434013
10674	VILLA DOLORES*BN*ARG	9011	12 24	7 11 19.97	6 18 00	-13 00				434013
10669	AREQUIPA*BN, PERU	9007	12 24	7 12 07.39	7 39 42	-60 17				434023
10670	AREQUIPA*BN, PERU	9007	12 24	7 14 30.16	10 10 54	-50 22				434023
10671	AREQUIPA*BN, PERU	9007	12 24	9 08 40.96	8 54 36	-14 49				434013
10678	VILLA DOLORES*BN*ARG	9011	12 26	1 41 42.79	2 23 12	-15 56				434013
10679	VILLA DOLORES*BN*ARG	9011	12 26	1 44 25.98	6 35 12	-25 30				434023
10680	VILLA DOLORES*BN*ARG	9011	12 26	3 34 37.03	2 22 30	-32 08				434023
10681	VILLA DOLORES*BN*ARG	9011	12 26	3 39 14.24	8 22 42	-30 12				434023
10682	VILLA DOLORES*BN*ARG	9011	12 26	7 30 57.62	10 08 00	25 44				434013
10689	VILLA DOLORES*BN*ARG	9011	12 27	0 55 02.76	7 00 36	-17 22				434013
10690	VILLA DOLORES*BN*ARG	9011	12 27	2 44 46.59	2 13 48	-34 11				434023
10687	SAN FERNANDO*BN, SP.	9004	12 28	6 16 31.50	14 43 18	-19 32				434013
10688	WOOMERA*BN, AUSTR.	9003	12 28	18 24 15.92	8 14 30	34 00				434013
50036	LAREDO*RAOAR, TEX.	4012	12 28	19 10 48			97 54 00	81 00 00	670	895307
10691	JUPITER*BN, FLA.	9010	12 29	10 42 54.06	11 22 36	-22 10				434013
10692	JUPITER*BN, FLA.	9010	12 29	10 43 36.59	11 45 36	-19 40				434013
10694	WOOMERA*BN, AUSTR.	9003	12 29	11 48 08.55	3 33 00	-45 32				434023
10695	WOOMERA*BN, AUSTR.	9003	12 29	13 41 05.70	3 33 06	-40 09				434023
10693	MAUI*BN, HAWAII	9012	12 29	16 07 24.18	12 29 30	12 10				434013
50038	LAREDO*RAOAR, TEX.	4012	12 29	16 25 58.5			8 42 00	74 30 00	1320	895307
50037	LAREDO*RAOAR, TEX.	4012	12 29	18 20 16			38 06 00	70 42 00	849	895307
10697	CURACAO*BN, N.W.I.	9009	12 30	9 54 37.89	10 45 54	27 36				434013
10696	SHIRAZ*BN, IRAN	9068	12 31	2 02 31.14	12 56 36	1 46				434013
30096	CINCINNATI, OHIO	0050	12 31	8 59 03.3	12 58 00	-28 12				845004
10699	MAUI*BN, HAWAII	9012	12 31	14 25 19.31	12 39 54	-2 83				434013

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CORRECTIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAU  
SPECIAL REPORTS FOR THE YEAR 1960.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INCL
00892	VILLA DOLORES*BN*ARG	9011	6 11	8 41 33.95	22 20 00	-38 26				434023
30020	SACRAMENTO, CAL.	8517	7 27	4 44 38.5			180 00	40 14		641304
50005	ROCHESTER, N.Y.	5050	7 30	2 57 23.6	15 40 30	-13 12				637004
10125	VILLA DOLORES*BN*ARG	9011	8 03	10 06 27.00	3 09 18	-23 39				434023
10162	TOKYO*BN, JAPAN	9005	8 08	11 50 21.30	15 57 36	-16 55				434013
10207	VILLA DOLORES*BN*ARG	9011	8 24	23 30 57.58	16 25 12	23 07				434013

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OBS NO	STATION	STA NO	OATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10180	MAUI'BN, HAWAII	9012	9 01	6 13 51.08	18 04 48	6 37				434013
10181	SHIRAZ'BN, IRAN	9008	9 01	17 49 39.41	16 41 48	-20 28				434013
10184	WOOMERA'BN, AUSTR.	9003	9 02	19 48 32.93	3 35 30	-31 00				434023
10186	CURACAO'BN, N.W.I.	9009	9 02	23 42 14.80	18 09 06	27 40				434013
10182	OLIFANTSFNTN'BN,S.AF	9002	9 03	2 43 44.30	6 30 30	-54 30				434023
10188	VILLA OLORES'BN,ARG	9011	9 03	9 41 06.57	4 56 18	-3 18				434013
10187	CURACAO'BN, N.W.I.	9009	9 04	1 12 18.28	18 01 36	-12 50				434013
10189	VILLA OLORES'BN,ARG	9011	9 04	8 41 37.49	4 05 48	-25 42				434023
10185	WOOMERA'BN, AUSTR.	9003	9 05	19 17 44.92	3 20 48	-21 49				434013
10190	VILLA OLORES'BN,ARG	9011	9 06	9 09 55.72	4 06 36	4 57				434013
10191	WOOMERA'BN, AUSTR.	9003	9 07	19 45 39.40	2 48 12	7 58				434013
10192	OLIFANTSFNTN'BN,S.AF	9002	9 08	18 18 24.40	20 22 54	25 21				434013
10193	AREQUIPA'BN, PERU	9007	9 09	1 14 14.56	20 08 18	2 13				434013
10194	AREQUIPA'BN, PERU	9007	9 09	8 38 43.75	7 50 18	-64 20				434023
10195	OLIFANTSFNTN'BN,S.AF	9002	9 09	17 20 15.70	20 54 54	23 48				434013
10197	WOOMERA'BN, AUSTR.	9003	9 10	19 15 11.79	2 54 42	20 30				434013
10198	AREQUIPA'BN, PERU	9007	9 11	9 06 45.68	5 42 00	-53 03				434023
10200	VILLA OLORES'BN,ARG	9011	9 11	9 06 49.59	3 02 36	25 20				434013
10202	OLIFANTSFNTN'BN,S.AF	9002	9 11	17 47 43.80	20 24 18	14 29				434013
10203	AREQUIPA'BN, PERU	9007	9 12	0 42 20.32	19 34 24	-5 16				434013
10204	AREQUIPA'BN, PERU	9007	9 12	23 41 39.79	19 24 36	8 04				434013
10201	OLIFANTSFNTN'BN,S.AF	9002	9 13	2 37 43.30	2 31 24	21 51				434013
10206	OLIFANTSFNTN'BN,S.AF	9002	9 13	18 16 12.30	20 15 42	-2 49				434013
10208	MAUI'BN, HAWAII	9012	9 14	5 30 44.97	15 53 00	-23 18				434023
10207	OLIFANTSFNTN'BN,S.AF	9002	9 14	17 15 10.00	19 40 24	9 14				434013
10210	WOOMERA'BN, AUSTR.	9003	9 15	11 49 36.97	19 28 24	-7 05				434013
10209	OLIFANTSFNTN'BN,S.AF	9002	9 15	18 45 25.20	20 43 12	-26 40				434023
10217	VILLA OLORES'BN,ARG	9011	9 15	23 13 22.18	19 28 24	14 55				434013
10218	VILLA OLORES'BN,ARG	9011	9 15	23 17 00.97	20 54 36	5 38				434013
10215	AREQUIPA'BN, PERU	9007	9 16	1 39 43.62	18 54 00	-48 33				434023
10213	WOOMERA'BN, AUSTR.	9003	9 16	10 51 48.37	20 33 12	-5 38				434013
10212	OLIFANTSFNTN'BN,S.AF	9002	9 16	17 42 59.10	19 40 06	-8 49				434013
10216	CURACAO'BN, N.W.I.	9009	9 17	0 30 31.96	15 45 00	-34 57				434023
10214	WOOMERA'BN, AUSTR.	9003	9 17	9 51 07.02	19 58 12	3 28				434013
10211	OLIFANTSFNTN'BN,S.AF	9002	9 17	19 12 31.07	19 34 48	-38 15				434023
10219	VILLA OLORES'BN,ARG	9011	9 17	23 41 05.41	19 04 54	3 42				434013
10220	VILLA OLORES'BN,ARG	9011	9 17	23 46 18.45	21 35 48	-9 50				434013
10222	VILLA OLORES'BN,ARG	9011	9 20	0 05 55.83	17 47 24	-0 52				434013
10221	AREQUIPA'BN, PERU	9007	9 20	0 06 55.10	18 33 12	-36 50				434023
10223	VILLA OLORES'BN,ARG	9011	9 20	0 17 35.02	23 51 18	-23 22				434023
10224	OLIFANTSFNTN'BN,S.AF	9002	9 20	18 41 15.90	19 45 18	-43 21				434023
30076	PRETORIA, S.AFR.	8575	9 20	18 41 36.0			194 36	70 00		434023
10226	VILLA OLORES'BN,ARG	9011	9 21	1 39 08.76	19 48 36	-33 34				434023
10225	WOOMERA'BN, AUSTR.	9003	9 21	10 47 50.73	20 02 12	-25 15				434023
10227	OLIFANTSFNTN'BN,S.AF	9002	9 21	17 40 21.10	19 13 54	-30 57				434023
10229	VILLA OLORES'BN,ARG	9011	9 22	0 40 00.57	20 12 12	-29 47				434023
10230	VILLA OLORES'BN,ARG	9011	9 22	0 44 05.43	23 26 06	-32 20				434023
10228	WOOMERA'BN, AUSTR.	9003	9 22	9 47 19.76	19 37 30	-16 34				434013
10231	WOOMERA'BN, AUSTR.	9003	9 22	12 16 04.93	20 22 54	-41 52				434023
10232	MAUI'BN, HAWAII	9012	9 22	15 07 00.25	6 51 48	-33 08				434023
10235	AREQUIPA'BN, PERU	9007	9 22	23 35 48.44	18 51 06	-43 48				434023
10234	WOOMERA'BN, AUSTR.	9003	9 23	11 17 24.55	21 09 24	-38 52				434023
10236	AREQUIPA'BN, PERU	9007	9 24	1 06 04.42	19 39 00	-66 22				434023
10233	OLIFANTSFNTN'BN,S.AF	9002	9 24	19 37 45.90	20 05 06	-57 01				434023
10237	MAUI'BN, HAWAII	9012	9 25	14 35 57.35	6 15 00	-32 25				434023
10240	CURACAO'BN, N.W.I.	9009	9 26	9 03 03.91	3 47 18	23 35				434013
10239	WOOMERA'BN, AUSTR.	9003	9 26	10 44 42.45	20 22 06	-39 07				434023
30074	PUEBLA, MEX.	0900	9 26	11 23 37.8	5 18 12	9 24				845043
30075	PUEBLA, MEX.	0900	9 26	11 23 50.6	5 42 00	12 53				845043
10238	OLIFANTSFNTN'BN,S.AF	9002	9 26	17 37 30.80	19 38 18	-47 04				434023
10241	VILLA OLORES'BN,ARG	9011	9 27	0 36 12.15	20 08 00	-39 09				434023
10242	VILLA OLORES'BN,ARG	9011	9 27	0 41 18.31	0 00 12	-33 03				434023
10244	WOOMERA'BN, AUSTR.	9003	9 27	12 13 27.61	21 23 54	-43 34				434023



OBS NO	STATION	STA NO	DATE	TIME	R. A.	OEC.	AZIMUTH	ALTITUDE	RANGE	INCLX
30077	PRETORIA, S.AFR.	8575	9 27	19 07 36.9			177 00	58 30		845303
10243	OLIFANTSFTN'BN,S.AF	9002	9 27	19 07 40.10	21 43 36	-56 59				434023
10247	VILLA OLORES'BN,ARG	9011	9 28	2 03 02.62	19 33 42	-36 58				434023
10246	CURACAO'BN, N.W.I.	9009	9 28	9 31 10.98	1 53 48	53 36				434013
10245	WOOMERA'BN, AUSTR.	9003	9 28	11 14 07.13	21 33 54	-42 58				434023
10248	NAINI TAL'BN, INDIA	9006	9 28	23 22 20.80	5 27 18	-22 05				434013
10251	VILLA OLORES'BN,ARG	9011	9 29	1 05 05.77	20 54 18	-40 52				434023
10249	WOOMERA'BN, AUSTR.	9003	9 29	10 11 39.68	19 40 42	-39 05				434023
10250	SHIRAZ'BN, IRAN	9008	9 30	0 44 18.73	6 29 24	-19 50				434013
10252	JUPITER'BN, FLA.	9010	9 30	9 59 07.02	6 25 48	8 30				434013
10254	WOOMERA'BN, AUSTR.	9003	9 30	11 41 59.94	21 33 24	-40 55				434023
10257	MAUI'BN, HAWAII	9012	9 30	14 33 38.03	5 25 42	24 30				434013
10253	OLIFANTSFTN'BN,S.AF	9002	9 30	18 35 07.40	20 52 06	-53 52				434023
10255	TOKYO'BN, JAPAN	9005	9 30	19 13 36.60	7 21 30	-17 13				434013
10256	SHIRAZ'BN, IRAN	9008	10 02	1 12 05.63	5 42 00	6 45				434013
10259	SHIRAZ'BN, IRAN	9008	10 05	0 41 41.98	6 21 24	20 21				434013
10258	SAN FERNANDO'BN, SP.	9004	10 06	4 21 55.30	5 49 12	-17 29				434013
10260	WOOMERA'BN, AUSTR.	9003	10 06	10 36 51.48	20 37 42	-36 54				434023
10266	SHIRAZ'BN, IRAN	9008	10 07	1 09 30.37	5 32 00	50 22				434013
10261	WOOMERA'BN, AUSTR.	9003	10 07	12 07 38.31	22 07 48	-11 22				434013
10262	SAN FERNANDO'BN, SP.	9004	10 08	4 50 05.80	6 16 18	2 17				434013
10263	TOKYO'BN, JAPAN	9005	10 08	18 39 20.90	6 28 18	1 00				434013
10264	NAINI TAL'BN, INDIA	9006	10 08	23 18 05.52	3 48 36	56 32				434013
10265	AREQUIPA'BN, PERU	9007	10 09	0 57 47.77	22 07 30	51 36				434013
10269	VILLA OLORES'BN,ARG	9011	10 09	23 57 29.45	20 59 18	-26 25				434023
10268	SAN FERNANDO'BN, SP.	9004	10 10	5 17 49.60	5 59 30	15 10				434013
10267	ORGAN PASS'BN, N.W.	9001	10 10	12 43 43.40	5 50 24	49 06				434013
10270	AREQUIPA'BN, PERU	9007	10 11	1 27 30.22	22 43 48	-34 29				434023
10271	SAN FERNANDO'BN, SP.	9004	10 11	4 19 33.50	6 41 36	6 15				434013
10272	WOOMERA'BN, AUSTR.	9003	10 11	10 35 44.85	21 51 36	-17 14				434013
10273	NAINI TAL'BN, INDIA	9006	10 11	22 47 22.98	8 30 00	61 31				434013
10287	SHIRAZ'BN, IRAN	9008	10 12	1 06 42.17	5 17 18	68 37				434013
10276	JUPITER'BN, FLA.	9010	10 12	10 21 28.02	4 13 00	78 08				434013
10274	WOOMERA'BN, AUSTR.	9003	10 12	12 02 47.88	21 13 42	2 58				434013
10278	VILLA OLORES'BN,ARG	9011	10 13	1 54 48.50	21 12 48	13 48				434013
10277	AREQUIPA'BN, PERU	9007	10 13	1 55 10.07	21 54 42	-18 20				434013
10279	WOOMERA'BN, AUSTR.	9003	10 13	11 01 38.69	20 49 18	-10 57				434013
10280	OLIFANTSFTN'BN,S.AF	9002	10 13	17 57 56.40	21 49 18	-16 35				434013
10275	AREQUIPA'BN, PERU	9007	10 14	0 55 04.49	22 09 18	-29 08				434023
10282	WOOMERA'BN, AUSTR.	9003	10 14	12 30 57.35	21 04 48	16 16				434013
10288	SHIRAZ'BN, IRAN	9008	10 15	0 36 03.93	6 23 48	71 14				434013
10284	SAN FERNANDO'BN, SP.	9004	10 15	5 15 10.00	6 38 24	13 27				434013
10283	WOOMERA'BN, AUSTR.	9003	10 15	11 29 29.17	20 36 12	1 38				434013
10281	OLIFANTSFTN'BN,S.AF	9002	10 15	18 24 36.70	20 58 24	-6 15				434013
30079	MITAKA, JAPAN	0229	10 15	19 04 01.5			182 18	76 12		845304
10285	TOKYO'BN, JAPAN	9005	10 15	19 04 06.50	6 09 54	21 47				434013
10286	NAINI TAL'BN, INDIA	9006	10 15	23 40 51.65	1 19 18	4 18				434013
10291	OLIFANTSFTN'BN,S.AF	9002	10 16	17 24 34.30	21 11 00	-15 05				434013
10295	AREQUIPA'BN, PERU	9007	10 17	0 22 06.83	21 31 36	-25 06				434023
10289	SHIRAZ'BN, IRAN	9008	10 17	1 03 50.57	5 27 06	66 54				434013
30078	CINCINNATI, OHIO	8555	10 17	10 17 45			188 30	43 48		845302
10290	JUPITER'BN, FLA.	9010	10 17	10 19 19.09	8 26 42	68 57				434013
10292	WOOMERA'BN, AUSTR.	9003	10 17	10 58 12.29	20 38 54	15 43				434013
30081	MIYAZAKI, JAPAN	0230	10 17	18 30 23	6 10	52				845002
30082	KAGOSHIMA, JAPAN	0218	10 17	19 30 32	7 27	52 06				845004
10293	NAINI TAL'BN, INDIA	9006	10 18	23 12 23.82	7 49 36	58 36				434013
10294	AREQUIPA'BN, PERU	9007	10 19	0 51 03.48	21 21 54	-5 38				434013
10296	SHIRAZ'BN, IRAN	9008	10 19	1 32 19.32	7 10 06	44 40				434013
30083	KAGOSHIMA, JAPAN	0218	10 19	19 58 33	7 14	32 00				845002
10298	AREQUIPA'BN, PERU	9007	10 19	23 49 22.98	21 07 30	-19 51				434013
10299	AREQUIPA'BN, PERU	9007	10 20	2 19 55.12	20 54 54	23 44				434013
10300	JUPITER'BN, FLA.	9010	10 20	9 48 19.72	7 24 18	68 28				434013
10297	ORGAN PASS'BN, N.W.	9001	10 20	11 07 27.40	4 36 00	15 45				434013
10301	WOOMERA'BN, AUSTR.	9003	10 20	11 25 35.98	20 19 24	16 52				434013
10302	TOKYO'BN, JAPAN	9005	10 20	19 01 10.60	5 51 06	3 19				434013
10303	NAINI TAL'BN, INDIA	9006	10 20	23 41 34.40	9 27 42	13 43				434013
10304	AREQUIPA'BN, PERU	9007	10 21	1 22 40.88	24 06 06	25 36				434013
10306	AREQUIPA'BN, PERU	9007	10 22	0 18 14.65	20 55 48	-1 47				434013
10308	CURACAO'BN, N.W.I.	9009	10 22	0 26 38.09	23 30 42	-25 40				434023
10307	SHIRAZ'BN, IRAN	9008	10 22	1 01 24.29	6 31 06	37 35				434013
30084	MITAKA, JAPAN	0229	10 22	19 29 03.0			198 54	36 42		845303
10305	ORGAN PASS'BN, N.W.	9001	10 23	11 37 23.81	5 58 36	0 58				434013

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10314	AREQUIPA'BN. PERU	9007	10 24	0 46 47.68	20 36 18	14 58				434013
10309	CURACAO'BN. N.W.I.	9009	10 24	0 54 09.31	22 41 24	-12 40				434013
10310	SHIRAZ'BN. IRAN	9008	10 24	1 29 33.08	6 23 06	-3 36				434013
10311	VILLA OLORES'BN. ARG	9011	10 24	8 01 41.22	4 56 42	-33 26				434023
10312	VILLA OLORES'BN. ARG	9011	10 24	8 08 39.55	8 44 24	-29 10				434023
10315	AREQUIPA'BN. PERU	9007	10 24	23 48 08.43	21 21 36	11 26				434013
10313	CURACAO'BN. N.W.I.	9009	10 24	23 54 19.73	22 58 18	-19 10				434013
10560	JUPITER'BN. FLA.	9010	10 24	23 55 04	23 43 00	-31 13				434023
30080	MADISON. WISC.	0148	10 25	9 45 07.1	4 37 00	15 54				845042
10318	JUPITER'BN. FLA.	9010	10 27	0 20 28.67	22 54 48	-28 31				434023
10316	CURACAO'BN. N.W.I.	9009	10 27	0 23 00.42	20 40 30	0 49				434013
10317	SHIRAZ'BN. IRAN	9008	10 27	0 58 50.60	6 05 42	-14 56				434013
10319	JUPITER'BN. FLA.	9010	10 27	10 13 59.84	6 18 12	-20 11				434013
10320	MAINI TAL'BN. INOIA	9006	10 27	14 15 58.09	23 46 36	-18 51				434013
10322	MAUI'BN. HAWAII	9012	10 27	14 50 11.28	8 39 18	33 13				434013
10321	SHIRAZ'BN. IRAN	9008	10 27	16 36 07.86	13 38 54	-15 38				434013
10323	CURACAO'BN. N.W.I.	9009	10 27	23 21 42.28	22 27 36	-12 58				434013
10330	MAUI'BN. HAWAII	9012	10 28	6 25 04.59	23 16 48	-1 44				434013
10325	MAINI TAL'BN. INOIA	9006	10 28	23 07 16.99	6 27 18	-29 16				434023
10326	CURACAO'BN. N.W.I.	9009	10 29	0 51 42.92	22 20 24	20 03				434013
10331	MAUI'BN. HAWAII	9012	10 29	5 24 48.75	23 12 48	-9 32				434013
10324	ORGAN PASS'BN. N.M.	9001	10 29	10 12 21.80	23 34 30	-13 00				434013
10329	JUPITER'BN. FLA.	9010	10 29	10 41 36.43	5 17 18	-34 54				434013
10334	MAUI'BN. HAWAII	9012	10 30	6 53 45.59	23 08 12	18 30				434013
10327	CURACAO'BN. N.W.I.	9009	10 30	9 47 06.99	7 18 30	7 23				434013
10332	ORGAN PASS'BN. N.M.	9001	10 31	1 11 50.50	23 09 00	-19 29				434013
10328	CURACAO'BN. N.W.I.	9009	10 31	8 48 12.91	8 45 00	48 21				434013
10337	MAUI'BN. HAWAII	9012	11 01	4 50 24.82	22 07 42	-8 13				434013
10335	MAINI TAL'BN. INOIA	9006	11 01	14 08 58.50	22 10 30	-7 19				434013
10338	MAUI'BN. HAWAII	9012	11 02	6 21 09.24	22 35 30	22 28				434013
10336	CURACAO'BN. N.W.I.	9009	11 02	9 15 41.22	5 10 30	2 12				434013
10342	MAUI'BN. HAWAII	9012	11 03	5 18 37.21	21 54 00	6 25				434013
10339	MAINI TAL'BN. INOIA	9006	11 03	14 40 53.51	23 27 30	16 08				434013
10341	SHIRAZ'BN. IRAN	9008	11 03	17 01 15.66	23 20 54	21 51				434013
10340	ORGAN PASS'BN. N.M.	9001	11 04	2 08 08.27	22 56 06	0 20				434013
10353	MAUI'BN. HAWAII	9012	11 04	6 49 54.99	22 31 42	39 11				434013
10343	MAINI TAL'BN. INOIA	9006	11 04	13 39 41.81	22 55 48	6 21				434013
10345	SHIRAZ'BN. IRAN	9008	11 04	15 59 47.81	22 42 18	10 47				434013
10349	JUPITER'BN. FLA.	9010	11 05	1 11 20.77	21 16 36	11 41				434013
10350	JUPITER'BN. FLA.	9010	11 05	1 13 00.70	22 12 30	19 22				434013
10351	JUPITER'BN. FLA.	9010	11 05	1 18 57.38	0 43 30	31 28				434013
10346	SHIRAZ'BN. IRAN	9008	11 05	14 58 50.43	22 26 06	2 56				434013
10344	MAINI TAL'BN. INOIA	9006	11 05	15 08 02.09	22 50 24	26 25				434013
10347	CURACAO'BN. N.W.I.	9009	11 06	0 13 38.28	20 45 06	36 58				434013
10348	CURACAO'BN. N.W.I.	9009	11 06	0 19 15.72	23 15 30	54 03				434013
10352	MAUI'BN. HAWAII	9012	11 06	4 46 51.63	21 52 48	14 44				434013
10358	SHIRAZ'BN. IRAN	9008	11 06	16 30 08.48	23 39 24	28 40				434013
10354	CURACAO'BN. N.W.I.	9009	11 06	23 12 16.31	22 47 00	27 58				434013
10355	CUPACAO'BN. N.W.I.	9009	11 07	1 45 16.55	21 14 18	58 41				434013
10561	MAUI'BN. HAWAII	9012	11 07	6 17 36.85	22 19 42	41 56				434013
10360	TOKYO'BN. JAPAN	9005	11 07	10 58 16.40	23 34 36	19 47				434013
30094	NITAKA. JAPAN	0229	11 07	10 58 23.2			161 48	74 18		845303
10356	MAINI TAL'BN. INOIA	9006	11 07	13 08 38.98	23 08 42	14 48				434013
10359	SHIRAZ'BN. IRAN	9008	11 07	15 27 57.72	20 40 18	17 35				434013
10357	MAINI TAL'BN. INOIA	9006	11 07	15 31 51.10	21 01 48	23 23				434013
10361	JUPITER'BN. FLA.	9010	11 08	0 39 34.48	21 17 30	19 07				434013
10362	JUPITER'BN. FLA.	9010	11 08	0 42 03.58	22 35 30	27 54				434013
30085	CINCINNATI. OHIO	0050	11 08	0 43 20	23 08 00	6 33				845004
30086	ROCHESTER. N.Y.	8564	11 08	0 43 55.8	22 42 04	1 28				845034
30087	N. CANTON. OHIO	8565	11 08	0 46 25.0	23 59 48	7 43				845042
10363	JUPITER'BN. FLA.	9010	11 08	0 47 39.19	0 53 48	34 54				434013
10368	MAUI'BN. HAWAII	9012	11 08	5 15 06.15	21 37 54	28 37				434013
10364	TOKYO'BN. JAPAN	9005	11 08	9 58 05.30	23 20 48	14 59				434013
10365	MAINI TAL'BN. INOIA	9006	11 08	14 39 01.74	0 26 06	35 59				434013
10371	SHIRAZ'BN. IRAN	9008	11 08	16 58 08.01	23 37 36	38 15				434013
10367	SAN FERNANDO'BN. SP.	9004	11 08	19 09 06.80	23 04 36	10 15				434013
10366	CURACAO'BN. N.W.I.	9009	11 08	23 41 22.69	20 40 30	41 32				434013
10369	ORGAN PASS'BN. N.M.	9001	11 09	2 07 39.51	0 13 30	23 11				434013
10374	MAUI'BN. HAWAII	9012	11 09	6 45 49.79	22 43 48	53 26				434013
10370	MAINI TAL'BN. INOIA	9006	11 09	13 37 09.12	23 20 36	27 03				434013
10372	ORGAN PASS'BN. N.M.	9001	11 10	1 05 03.80	23 02 42	14 35				434013
10387	JUPITER'BN. FLA.	9010	11 10	1 09 35.55	21 47 18	34 08				434013
10469	ORGAN PASS'BN. N.M.	9001	11 10	1 10 34.92	0 57 06	19 44				434013
10388	JUPITER'BN. FLA.	9010	11 10	1 10 45.08	22 17 48	37 04				434013
10389	JUPITER'BN. FLA.	9010	11 10	1 13 39.45	23 51 54	42 34				434013
30088	CHINA LAKE. CAL.	8588	11 10	3 30 00.9			164 16 48	76 42 36		845303
10373	ORGAN PASS'BN. N.M.	9001	11 10	3 33 43.60	23 29 48	34 07				434013

OBS NO	STATION	STA NO	OATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10376	TOKYO*BN, JAPAN	9005	11 10	10 24 35.70	22 45 00	22 31				434013
10383	SHIRAZ*BN, IRAN	9008	11 10	14 53 36.73	21 50 06	18 57				434013
10377	MAINI TAL*BN, INOIA	9006	11 10	15 05 04.44	23 17 54	40 55				434013
10384	SHIRAZ*BN, IRAN	9008	11 10	17 24 55.10	22 52 48	41 13				434013
10375	ORGAN PASS*BN, N.M.	9001	11 11	2 33 11.50	23 13 30	29 04				434013
10378	MAINI TAL*BN, INOIA	9006	11 11	14 00 08.06	21 18 18	26 58				434013
10385	SHIRAZ*BN, IRAN	9008	11 11	16 25 27.84	23 15 36	39 11				434013
30089	N. CANTON, OHIO	0053	11 12	1 41 45.6	0 05 00	18 34				845033
30090	CHINA LAKE, CAL.	8588	11 12	3 58 40.5			172 17 24	83 33 36		845033
10381	AREQUIPA*BN, PERU	9007	11 12	9 14 00.98	8 00 00	3 31				434013
10379	MAINI TAL*BN, INOIA	9006	11 12	13 00 52.14	21 45 18	24 46				434013
10386	SHIRAZ*BN, IRAN	9008	11 12	15 22 55.48	22 13 00	31 09				434013
30091	CHINA LAKE, CAL.	8588	11 13	2 56 54.8			165 55 12	78 55 48		845033
10382	AREQUIPA*BN, PERU	9007	11 13	8 15 17.23	8 59 42	32 39				434013
10380	MAINI TAL*BN, INOIA	9006	11 13	14 29 20.76	21 23 42	36 34				434013
10399	SHIRAZ*BN, IRAN	9008	11 13	16 53 17.15	23 12 36	42 52				434013
10390	ORGAN PASS*BN, N.M.	9001	11 14	2 01 41.00	23 30 18	32 29				434013
10393	MAINI TAL*BN, INOIA	9006	11 14	13 35 03.04	0 24 30	38 23				434013
10394	SHIRAZ*BN, IRAN	9008	11 14	15 52 17.10	22 48 54	39 39				434013
10392	SAN FERNANDO*BN, SP.	9004	11 14	20 34 31.50	0 06 48	29 13				434013
30092	CHINA LAKE, CAL.	8588	11 15	3 25 42.3			4 03 00	84 53 24		845033
10391	ORGAN PASS*BN, N.M.	9001	11 15	3 28 54.40	23 13 24	37 31				434013
30101	HIGASHIMATSUYAMA, JAP	0210	11 15	10 22 05.5	23 44 30	30 18				845003
10395	TOKYO*BN, JAPAN	9005	11 15	10 22 32.00	23 50 12	30 40				434013
10398	SHIRAZ*BN, IRAN	9008	11 15	14 49 28.55	21 50 12	33 00				434013
10396	MAINI TAL*BN, INOIA	9006	11 15	15 01 02.49	23 28 18	43 59				434013
10397	SAN FERNANDO*BN, SP.	9004	11 15	19 32 32.60	23 06 48	27 58				434013
10398	SAN FERNANDO*BN, SP.	9004	11 16	21 01 58.00	0 00 12	27 59				434013
30093	TERRE HAUTE, INO.	8127	11 17	1 34 25.0	23 30 15	24 14				845044
30095	CINCINNATI, OHIO	0050	11 17	1 35 26.0	23 39 48	24 56				845004
10401	OLIFANTSFNTN*BN, S.A.F.	9002	11 17	2 16 24.43	8 45 30	7 58				434013
10403	MAUI*BN, HAWAII	9012	11 17	6 12 09.96	0 01 12	57 27				434013
10402	WOOMERA*BN, AUSTR.	9003	11 17	18 24 04.53	9 25 36	31 08				834013
30098	CINCINNATI, OHIO	0050	11 18	0 33 18.2	22 48 48	25 04				845004
30096	N. CANTON, OHIO	8559	11 18	0 34 47.4	22 54 21	21 49				845014
30097	ROCHESTER, N.Y.	8564	11 18	0 36 56.4	23 21 18	18 00				845014
10400	ORGAN PASS*BN, N.M.	9001	11 18	2 57 57.96	23 56 24	37 03				434013
30099	CINCINNATI, OHIO	0050	11 18	3 01 05.5	23 03 54	19 40				845004
10419	MAUI*BN, HAWAII	9012	11 18	5 10 28.00	23 19 12	54 25				434013
10404	VILLA DOLORES*BN, ARG	9011	11 18	8 15 19.18	8 45 06	28 22				434013
10409	TOKYO*BN, JAPAN	9005	11 18	9 47 43.50	22 45 36	31 05				434013
30107	HIGASHIMATSUYAMA, JAP	0210	11 18	9 47 57.9			180 00	85 00		845303
10412	MAINI TAL*BN, INOIA	9006	11 18	14 32 27.83	1 29 12	38 51				434013
10408	SAN FERNANDO*BN, SP.	9004	11 18	18 59 32.50	22 53 48	28 13				434013
10416	JUPITER*BN, FLA.	9010	11 18	23 29 14.40	20 47 54	38 34				434013
10417	JUPITER*BN, FLA.	9010	11 18	23 32 13.70	21 53 48	42 22				434013
10418	JUPITER*BN, FLA.	9010	11 18	23 44 06.49	2 34 06	32 38				434013
10405	ORGAN PASS*BN, N.M.	9001	11 19	1 55 15.08	22 46 18	36 03				434013
10410	TOKYO*BN, JAPAN	9005	11 19	8 44 40.70	21 44 48	28 10				434013
10407	WOOMERA*BN, AUSTR.	9003	11 19	18 51 49.45	8 51 36	13 57				434013
10415	CURACAO*BN, N.W.I.	9009	11 20	1 09 14.50	0 26 00	64 18				434013
30105	CINCINNATI, OHIO	0050	11 20	2 31 46	0 06 54	15 35				845004
10406	ORGAN PASS*BN, N.M.	9001	11 20	3 26 30.61	0 18 24	32 41				434013
10411	TOKYO*BN, JAPAN	9005	11 20	10 16 39.20	23 18 30	30 33				434013
30108	HIGASHIMATSUYAMA, JAP	0210	11 20	10 17 03.6			180 00	84 12		845303
10421	MAINI TAL*BN, INOIA	9006	11 20	14 59 29.60	1 05 00	35 47				434013
10422	SHIRAZ*BN, IRAN	9008	11 20	17 18 04.58	23 58 36	35 07				434013
10423	CURACAO*BN, N.W.I.	9009	11 21	0 09 08.46	0 47 54	63 02				434013
30100	CINCINNATI, OHIO	0050	11 21	1 02 08.8	23 16 36	25 35				845004
10420	ORGAN PASS*BN, N.M.	9001	11 21	2 26 47.42	0 27 36	34 05				434013
10425	MAUI*BN, HAWAII	9012	11 21	7 06 14.88	22 52 48	50 41				434013
10424	TOKYO*BN, JAPAN	9005	11 21	9 16 13.20	23 11 42	31 18				434013
10427	SHIRAZ*BN, IRAN	9008	11 21	16 17 56.99	0 02 30	38 28				434013
10426	ORGAN PASS*BN, N.M.	9001	11 22	3 53 58.90	0 05 24	25 38				434013
10428	SHIRAZ*BN, IRAN	9008	11 22	15 16 01.72	23 20 54	40 45				434013
10430	JUPITER*BN, FLA.	9010	11 23	0 31 50.92	23 37 18	43 40				434013
10431	JUPITER*BN, FLA.	9010	11 23	0 32 56.26	0 07 06	42 31				434013
10429	CURACAO*BN, N.W.I.	9009	11 23	0 39 17.60	1 48 00	56 36				434013
10437	VILLA DOLORES*BN, ARG	9011	11 23	8 12 44.23	8 30 18	-7 30				434013
30102	CINCINNATI, OHIO	0050	11 24	1 59 13.6	23 58 30	14 00				845004
10434	JUPITER*BN, FLA.	9010	11 24	2 01 55.07	0 18 06	30 39				434013
10450	MAUI*BN, HAWAII	9012	11 24	6 38 26.98	1 14 00	42 11				434013
10433	MAINI TAL*BN, INOIA	9006	11 24	13 23 05.41	23 19 36	39 41				434013
10432	WOOMERA*BN, AUSTR.	9003	11 24	18 49 34.65	9 55 18	-33 39				434023
10436	JUPITER*BN, FLA.	9010	11 25	0 56 14.23	22 09 42	40 26				434013
10449	MAUI*BN, HAWAII	9012	11 25	5 38 29.34	1 25 00	42 58				434013
10448	VILLA DOLORES*BN, ARG	9011	11 25	7 14 40.33	9 45 12	5 09				434013
10441	MAINI TAL*BN, INOIA	9006	11 25	14 55 48.56	0 59 54	21 37				434013
10438	WOOMERA*BN, AUSTR.	9003	11 25	17 50 06.98	7 51 30	-3 34				434013
10440	SAN FERNANDO*BN, SP.	9004	11 25	19 23 05.70	23 15 48	25 27				434013

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30103	CINCINNATI, OHIO	0050	11 25	23 54 39.6	22 29 12	25 43				845004
10443	CURACAO'BN, N.W.I.	9009	11 26	0 05 04.07	0 42 24	55 12				434013
30104	CINCINNATI, OHIO	0050	11 26	2 27 28.3	0 06 08	4 16				845004
10445	JUPITER'BN, FLA.	9010	11 26	2 27 38.55	23 19 42	22 50				434013
10446	JUPITER'BN, FLA.	9010	11 26	2 29 38.93	0 03 24	18 43				434013
10457	MAUI'BN, HAWAII	9012	11 26	4 31 29.74	22 46 54	52 10				434013
10458	MAUI'BN, HAWAII	9012	11 26	7 04 16.22	0 48 12	32 05				434013
10444	CURACAO'BN, N.W.I.	9009	11 26	23 02 13.57	23 51 36	58 08				434013
10447	VILLA OLORES'BN, ARG	9011	11 27	6 43 42.19	8 57 30	-1 09				434013
10442	NAINI TAL'BN, INOIA	9006	11 27	15 22 27.89	0 18 24	13 01				434013
10439	WOOMERA'BN, AUSTR.	9003	11 27	18 18 05.75	7 32 18	-37 47				434023
10451	JUPITER'BN, FLA.	9010	11 28	0 30 59.53	0 55 54	27 13				434013
10452	JUPITER'BN, FLA.	9010	11 28	0 33 21.10	1 42 00	21 08				434013
10453	JUPITER'BN, FLA.	9010	11 28	0 37 03.46	3 02 18	9 41				434013
10454	VILLA OLORES'BN, ARG	9011	11 28	8 08 42.09	5 01 54	-27 15				434023
10455	TOKYO'BN, JAPAN	9005	11 28	9 36 41.60	22 28 18	25 00				434013
10456	NAINI TAL'BN, INOIA	9006	11 28	14 20 50.14	23 55 30	23 16				434013
10460	JUPITER'BN, FLA.	9010	11 28	23 25 29.22	23 14 54	36 01				434013
10461	JUPITER'BN, FLA.	9010	11 28	23 27 42.75	0 00 24	35 39				434013
30106	PUEBLA, MEX.	0900	11 29	1 48 13.7	23 48 42	43 12				845044
10462	ORGAN PASS'BN, N.M.	9001	11 30	3 16 55.05	23 45 00	8 30				434013
10562	MAUI'BN, HAWAII	9012	11 30	5 33 09.06	0 41 54	32 31				434013
10463	WOOMERA'BN, AUSTR.	9003	11 30	17 47 13.35	7 08 00	-43 55				434023
10466	OLIFANTSFNTN'BN, S.AF	9002	12 01	0 41 22.47	6 26 48	-71 11				434023
10464	ORGAN PASS'BN, N.M.	9001	12 01	2 12 20.21	22 33 12	22 23				434013
10557	ORGAN PASS'BN, N.M.	9001	12 01	2 14 58.48	23 19 48	18 11				434013
10465	ORGAN PASS'BN, N.M.	9001	12 01	2 19 13.62	0 34 12	9 04				434013
10563	MAUI'BN, HAWAII	9012	12 01	7 03 30.00	0 50 18	6 52				434013
10468	VILLA OLORES'BN, ARG	9011	12 01	7 39 17.93	8 41 00	-49 40				434023
10467	NAINI TAL'BN, INOIA	9006	12 01	13 50 05.83	0 21 42	14 41				434013
10471	VILLA OLORES'BN, ARG	9011	12 02	6 40 00.01	6 57 06	-32 25				434023
10472	VILLA OLORES'BN, ARG	9011	12 03	8 07 15.89	8 56 00	-55 35				434023
10474	NAINI TAL'BN, INOIA	9006	12 04	15 44 10.18	23 19 30	-9 44				434013
10470	WOOMERA'BN, AUSTR.	9003	12 04	16 18 51.91	9 33 42	-32 11				434023
10475	JUPITER'BN, FLA.	9010	12 05	0 48 51.84	22 46 54	12 33				434013
10476	JUPITER'BN, FLA.	9010	12 05	0 51 26.21	23 26 24	6 59				434013
10478	NAINI TAL'BN, INOIA	9006	12 05	14 43 14.68	23 12 54	-1 57				434013
10473	WOOMERA'BN, AUSTR.	9003	12 05	17 44 16.96	6 45 36	-57 46				434023
10477	ORGAN PASS'BN, N.M.	9001	12 06	4 42 43.10	23 51 30	-26 27				434023
10480	TOKYO'BN, JAPAN	9005	12 06	8 58 57.50	22 23 00	10 44				434013
10479	WOOMERA'BN, AUSTR.	9003	12 06	16 45 15.44	6 21 54	-49 13				434023
10481	OLIFANTSFNTN'BN, S.AF	9002	12 06	18 41 33.14	3 31 12	27 42				434013
10486	NAINI TAL'BN, INOIA	9006	12 07	15 13 45.12	23 34 36	-19 22				434013
10483	WOOMERA'BN, AUSTR.	9003	12 07	18 12 39.20	8 26 36	-55 35				434023
10485	WOOMERA'BN, AUSTR.	9003	12 08	17 13 48.81	8 16 00	-56 20				434023
10487	WOOMERA'BN, AUSTR.	9003	12 09	11 17 27.59	3 36 42	21 20				434013
10488	WOOMERA'BN, AUSTR.	9003	12 09	18 40 55.40	9 15 42	-33 15				434023
30109	CINCINNATI, OHIO	0050	12 10	0 39 58	22 19 54	-6 58				845004
10492	JUPITER'BN, FLA.	9010	12 10	23 43 39.26	22 35 54	2 04				434013
10490	VILLA OLORES'BN, ARG	9011	12 12	1 37 37.45	3 28 18	5 51				434013
10491	VILLA OLORES'BN, ARG	9011	12 12	6 31 51.50	3 33 36	-33 40				434023
10489	WOOMERA'BN, AUSTR.	9003	12 12	18 09 45.31	8 08 54	-27 53				434023
10494	AREQUIPA'BN, PERU	9007	12 13	0 32 44.33	2 35 00	-1 01				434013
10493	OLIFANTSFNTN'BN, S.AF	9002	12 13	1 03 57.48	7 59 36	-67 10				434023
10496	OLIFANTSFNTN'BN, S.AF	9002	12 13	19 06 04.97	2 42 48	-6 00				434013
30110	PRETORIA, S.AFR.	0405	12 13	19 07 01.1	3 13	-9 06				845042
10497	OLIFANTSFNTN'BN, S.AF	9002	12 14	0 04 38.27	6 59 12	-70 52				434023
10498	AREQUIPA'BN, PERU	9007	12 14	2 03 27.04	3 13 12	-37 19				434023
10499	VILLA OLORES'BN, ARG	9011	12 14	7 02 07.92	7 13 42	-29 08				434023
10501	WOOMERA'BN, AUSTR.	9003	12 14	18 37 06.65	6 54 54	-2 13				434013
10503	AREQUIPA'BN, PERU	9007	12 15	1 00 12.44	1 59 24	-15 32				434013
10500	OLIFANTSFNTN'BN, S.AF	9002	12 15	1 32 05.49	7 56 24	-40 58				434023
10502	AREQUIPA'BN, PERU	9007	12 15	3 32 22.93	3 10 00	-64 11				434023
10504	VILLA OLORES'BN, ARG	9011	12 15	3 34 11.23	3 38 18	-30 37				434023
10505	VILLA OLORES'BN, ARG	9011	12 15	3 38 24.49	7 59 36	-33 43				434023
10506	VILLA OLORES'BN, ARG	9011	12 15	6 03 11.16	7 11 24	-41 10				434023
10507	WOOMERA'BN, AUSTR.	9003	12 15	12 44 48.85	5 06 54	-24 23				434023
10508	WOOMERA'BN, AUSTR.	9003	12 15	15 12 07.36	6 30 06	-48 14				434023
10509	WOOMERA'BN, AUSTR.	9003	12 15	17 39 07.85	8 28 18	-17 23				434013
10510	SAN FERNANDO'BN, SP.	9004	12 15	19 00 10.90	21 47 48	-16 36				434013
10511	CURACAO'BN, N.W.I.	9009	12 15	23 49 27.47	23 12 24	-20 54				434013
10514	WOOMERA'BN, AUSTR.	9003	12 16	11 42 14.89	3 18 00	-10 32				434013
10524	VILLA OLORES'BN, ARG	9011	12 17	1 38 32.50	5 47 12	-22 46				434013
10516	WOOMERA'BN, AUSTR.	9003	12 17	15 40 27.77	7 13 12	-45 01				434023

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10512	OLIFANTSFTN'BN,S.AF	9002	12 17	20 05 15.08	4 04 54	-44 35				434023
10525	VILLA ODOLORES'BN,ARG	9011	12 18	0 33 04.25	2 44 00	-6 55				434013
10527	VILLA ODOLORES'BN,ARG	9011	12 18	2 56 39.74	0 56 00	-15 58				434013
10519	AREQUIPA'BN, PERU	9007	12 18	3 00 15.28	2 49 06	-62 43				434023
10528	VILLA ODOLORES'BN,ARG	9011	12 18	5 32 57.34	8 24 24	-30 48				434023
10530	ORGAN PASS'BN, N.M.	9001	12 19	1 18 03.10	20 58 54	-16 49				434013
10521	AREQUIPA'BN, PERU	9007	12 19	1 58 36.79	2 07 00	-50 15				434023
10531	VILLA ODOLORES'BN,ARG	9011	12 19	4 29 52.67	3 27 18	-38 19				434023
10536	VILLA ODOLORES'BN,ARG	9011	12 20	1 02 26.92	3 14 54	-21 46				434013
10537	VILLA ODOLORES'BN,ARG	9011	12 20	1 07 16.17	5 48 06	-26 10				434023
10534	AREQUIPA'BN, PERU	9007	12 20	3 29 27.02	3 38 48	-71 12				434023
10538	VILLA ODOLORES'BN,ARG	9011	12 20	6 00 47.83	7 56 24	-12 37				434013
10539	VILLA ODOLORES'BN,ARG	9011	12 21	2 27 09.83	1 39 00	-27 18				434023
10540	VILLA ODOLORES'BN,ARG	9011	12 21	2 32 48.18	5 07 36	-39 02				434023
10543	OLIFANTSFTN'BN,S.AF	9002	12 22	20 01 17.70	3 56 00	-52 34				434023
10547	VILLA ODOLORES'BN,ARG	9011	12 26	2 26 23.26	3 22 36	-39 45				434023
10548	VILLA ODOLORES'BN,ARG	9011	12 26	2 31 54.36	7 13 42	-31 21				434023
10549	WOOMERA'BN, AUSTR.	9003	12 28	12 05 15.23	5 06 30	-39 43				434023
10550	WOOMERA'BN, AUSTR.	9003	12 28	14 33 34.93	5 50 30	-22 05				434013
10551	SHIRAZ'BN, IRAN	9008	12 29	2 35 36.77	13 14 18	2 06				434013
10553	VILLA ODOLORES'BN,ARG	9011	12 29	4 24 02.10	4 52 06	-16 04				434013
10554	WOOMERA'BN, AUSTR.	9003	12 29	11 02 17.44	3 23 54	-39 29				434023
10555	VILLA ODOLORES'BN,ARG	9011	12 30	3 22 04.59	3 31 30	-29 54				434023
10556	VILLA ODOLORES'BN,ARG	9011	12 30	3 27 17.69	6 44 00	-15 28				434013

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ADDITIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAO  
SPECIAL REPORTS FOR THE YEAR 1960.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	OECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10333	MAUI'BN, HAWAII	9012	7 28	13 56 08.52	0 14 12	50 30				434013

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CORRECTIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAO  
SPECIAL REPORTS FOR THE YEAR 1960.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	OECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
30020	TERRE HAUTE, INO.	8127	8 01	2 56 09.0			160 00	45 00		845303
10145	VILLA ODOLORES'BN,ARG	9011	8 20	8 49 38.02	2 50 42	-25 16				434013
10148	SHIRAZ'BN, IRAN	9008	8 21	16 29 04.89	17 57 48	35 06				434013
10149	CURACAO'BN, N.W.I.	9009	8 22	1 49 39.36	19 50 42	57 06				434013
10161	SHIRAZ'BN, IRAN	9008	8 24	18 24 33.22	17 30 30	-5 26				434013
10173	SHIRAZ'BN, IRAN	9008	8 28	16 54 41.50	18 01 54	-2 46				434013

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CORRECTIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAO  
SPECIAL REPORTS FOR THE YEAR 1959.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	OECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
00593	BRATISLAVA, CZECH.	8126	2 26	18 15 48.8	5 29 30	47 42				834009
00594	BRATISLAVA, CZECH.	8126	2 26	18 15 58.9	5 56 48	45 48				834009
00724	BRATISLAVA, CZECH.	8126	2 27	18 21 44.4	4 43 12	40 14				834040
00595	BRATISLAVA, CZECH.	8126	3 01	18 33 5	4 15 00	21 18				834009
00596	BRATISLAVA, CZECH.	8126	3 02	18 39 35.4	4 11 18	13 00				834009
00599	BRATISLAVA, CZECH.	8126	4 04	2 52 32.1	22 36 12	39 42				834009
00597	BRATISLAVA, CZECH.	8126	4 04	3 06 45.2	19 20 00	64 48				834009
00598	BRATISLAVA, CZECH.	8126	4 05	2 51 33.8	18 20 48	71 12				834009
00600	BRATISLAVA, CZECH.	8126	4 06	2 35 52.5	17 00 00	68 48				834009
00601	BRATISLAVA, CZECH.	8126	4 22	21 35 05.3	11 54 30	58 12				834009

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
00602	BRATISLAVA, CZECH.	8126	4 25	19 16 38.8	10 27 42	47 18				834009
00603	BRATISLAVA, CZECH.	8126	4 25	19 17 23.3	12 18 00	49 00				834009
00604	BRATISLAVA, CZECH.	8126	4 25	19 18 15.6	14 14 48	46 00				834009
00605	BRATISLAVA, CZECH.	8126	4 25	21 02 37.8	12 28 00	67 48				834009
00606	BRATISLAVA, CZECH.	8126	4 25	21 03 20.7	13 50	65 00				834009
00607	BRATISLAVA, CZECH.	8126	4 25	21 03 57.9	14 50	59 24				834009
00718	BRATISLAVA, CZECH.	8126	4 26	20 34 30.2	12 00 24	67 36				834009
00719	BRATISLAVA, CZECH.	8126	4 26	20 34 52.6	13 40 00	65 00				834009
00720	BRATISLAVA, CZECH.	8126	4 26	20 35 57.0	16 22 36	46 24				834009
00609	BRATISLAVA, CZECH.	8126	5 03	20 31 49.8	12 32 00	8 42				834009
00610	BRATISLAVA, CZECH.	8126	5 03	20 32 05.9	12 54 00	4 06				834009
00611	BRATISLAVA, CZECH.	8126	5 04	19 58 23.4	12 00 18	19 36				834009
00612	BRATISLAVA, CZECH.	8126	5 04	19 59 06.3	13 00 06	11 18				834009
00613	BRATISLAVA, CZECH.	8126	5 04	20 00 22.1	14 18 54	- 1 42				834009
00725	BRATISLAVA, CZECH.	8126	5 05	19 25 26.2	12 56 18	16 59				834040
00723	BRATISLAVA, CZECH.	8126	5 05	19 25 32.3	14 00 12	4 48				834009
00722	BRATISLAVA, CZECH.	8126	5 05	19 25 41.6	13 14 12	13 48				834009
00727	BRATISLAVA, CZECH.	8126	5 05	19 26 32.3	14 00 12	4 49				834040

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10550	AREQUIPA*BN, PERU	9007	9 01	8 10 35.82	0 06 24	36 53				434013
10552	CURACAO*BN, N.W.I.	9009	9 01	8 19 20.57	2 38 48	21 31				434013
10545	JUPITER*BN, FLA.	9010	9 01	8 20 29.71	3 54 18	- 2 02				434013
10548	WOOMERA*BN, AUSTR.	9003	9 01	9 35 25.56	19 11 36	-34 23				434023
10553	MAUI*BN, HAWAII	9012	9 01	12 22 12.07	2 42 36	-16 42				434013
10554	MAUI*BN, HAWAII	9012	9 01	14 39 46.52	2 59 18	17 54				434013
10547	OLIFANTSFNTN*BN,S.AF	9002	9 01	18 00 14.80	16 06 36	-68 58				434023
10555	SHIRAZ*BN, IRAN	9008	9 01	22 52 41.68	2 47 30	-17 51				434013
10569	VILLA OLORES*BN,ARG	9011	9 02	0 17 21.86	18 08 00	-40 19				434023
10556	SHIRAZ*BN, IRAN	9008	9 02	1 11 28.84	3 45 18	13 55				434013
10549	SAN FERNANDO*BN, SP.	9004	9 02	3 09 55.40	3 51 36	-10 03				434013
10560	WOOMERA*BN, AUSTR.	9003	9 02	10 44 30.27	17 40 30	-45 50				434023
10574	MAUI*BN, HAWAII	9012	9 02	13 33 21.58	2 25 18	3 08				434013
10557	OLIFANTSFNTN*BN,S.AF	9002	9 02	16 57 05.30	13 49 18	-63 03				434023
10570	VILLA OLORES*BN,ARG	9011	9 02	23 14 17.85	16 28 18	-35 05				434023
10565	SHIRAZ*BN, IRAN	9008	9 03	1 05 33.22	3 11 54	3 03				434013
10562	SAN FERNANDO*BN, SP.	9004	9 03	4 21 28.40	4 15 00	3 41				434013
10567	CURACAO*BN, N.W.I.	9009	9 03	8 24 05.30	2 34 36	27 18				434013
10575	MAUI*BN, HAWAII	9012	9 03	14 44 54.15	2 33 36	27 12				434013
10558	OLIFANTSFNTN*BN,S.AF	9002	9 03	18 07 31.10	16 31 00	-69 18				434023
10566	SHIRAZ*BN, IRAN	9008	9 03	23 01 21.24	3 09 36	- 4 05				434013
10571	VILLA OLORES*BN,ARG	9011	9 04	0 24 02.95	17 09 00	-36 05				434023
10568	CURACAO*BN, N.W.I.	9009	9 04	7 38 30.54	2 15 48	49 18				434013
10561	WOOMERA*BN, AUSTR.	9003	9 04	10 51 41.64	17 52 30	-42 37				434023
10576	MAUI*BN, HAWAII	9012	9 04	13 40 46.01	2 24 42	17 14				434013
10559	OLIFANTSFNTN*BN,S.AF	9002	9 04	17 05 14.00	18 12 00	-78 06				434023
10572	VILLA OLORES*BN,ARG	9011	9 04	23 19 04.96	12 55 00	-15 18				434013
10573	VILLA OLORES*BN,ARG	9011	9 04	23 23 03.48	20 42 00	-33 58				434023
10563	SAN FERNANDO*BN, SP.	9004	9 05	4 25 12.70	3 17 48	7 31				434013
10577	MAUI*BN, HAWAII	9012	9 05	12 36 06.93	2 23 30	6 42				434013
10578	MAUI*BN, HAWAII	9012	9 05	14 53 36.95	2 48 36	38 41				434013
10582	OLIFANTSFNTN*BN,S.AF	9002	9 05	18 14 01.60	16 09 48	-62 00				434023
10579	NAINI TAL*BN, INOIA	9006	9 05	23 16 10.02	2 58 06	24 53				434013
10581	VILLA OLORES*BN,ARG	9011	9 06	0 30 27.41	15 58 54	-25 04				434023
10564	SAN FERNANDO*BN, SP.	9004	9 06	3 21 24.30	3 18 12	1 22				434013
10580	JUPITER*BN, FLA.	9010	9 06	9 44 05.11	3 30 18	31 56				434013
10585	VILLA OLORES*BN,ARG	9011	9 06	23 30 33.04	21 12 36	-24 04				434023
10583	SAN FERNANDO*BN, SP.	9004	9 07	2 14 31.30	2 23 54	- 9 25				434013
10584	SAN FERNANDO*BN, SP.	9004	9 07	4 33 41.20	3 58 18	16 45				434013
10588	MAUI*BN, HAWAII	9012	9 07	12 41 22.90	1 37 24	14 38				434013
10587	NAINI TAL*BN, INOIA	9006	9 07	23 24 29.61	3 41 18	34 14				434013
10586	SAN FERNANDO*BN, SP.	9004	9 08	3 28 01.00	3 18 36	8 57				434013
10589	WOOMERA*BN, AUSTR.	9003	9 08	11 04 54.30	16 06 42	-16 20				434013
10590	OLIFANTSFNTN*BN,S.AF	9002	9 08	17 19 19.90	16 35 12	-71 16				434023
10591	SAN FERNANDO*BN, SP.	9004	9 09	4 39 39.90	3 49 48	21 22				434013
10600	MAUI*BN, HAWAII	9012	9 09	12 48 13.60	1 26 30	27 05				434013
10601	MAUI*BN, HAWAII	9012	9 09	15 08 00.58	3 18 36	51 28				434013
10598	CURACAO*BN, N.W.I.	9009	9 10	7 40 10.81	0 54 18	50 05				434013
10592	OLIFANTSFNTN*BN,S.AF	9002	9 10	17 26 50.20	18 13 18	-57 28				434023
10602	VILLA OLORES*BN,ARG	9011	9 10	23 43 07.09	17 25 18	- 6 03				434013

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10597	SHIRAZ'BN, IRAN	9008	9 11	0 31 10.32	2 38 30	33 49				434013
10593	SAN FERNANDO'BN, SP.	9004	9 11	2 26 52.80	1 53 42	2 18				434013
10594	SAN FERNANDO'BN, SP.	9004	9 11	4 45 21.30	3 35 54	24 17				434013
10599	MAUI'BN, HAWAII	9012	9 11	12 54 13.21	0 54 18	35 24				434013
10596	SHIRAZ'BN, IRAN	9008	9 11	23 26 01.29	2 11 42	28 16				434013
10595	SAN FERNANDO'BN, SP.	9004	9 12	3 39 52.20	2 56 06	19 45				434013
30106	WICHITA, KAN.	0028	9 12	9 56 49.0	2 53 24	19 02				845043
10603	OLIFANTSFNTH'BN,S.AF	9002	9 12	17 33 55.50	17 47 48	-31 02				434023
10609	SHIRAZ'BN, IRAN	9008	9 12	22 21 39.51	2 04 06	21 21				434013
10608	AREQUIPA'BN, PERU	9007	9 12	23 50 22.93	22 47 30	-71 35				434023
10611	VILLA DOLORES'BN,ARG	9011	9 12	23 51 03.87	18 51 12	19 35				434013
10610	SHIRAZ'BN, IRAN	9008	9 13	0 39 09.80	3 25 18	38 38				434013
10604	SAN FERNANDO'BN, SP.	9004	9 13	2 34 57.00	2 27 54	13 05				434013
10605	SAN FERNANDO'BN, SP.	9004	9 13	4 51 27.80	3 33 54	25 48				434013
10606	CURACAO'BN, N.W.I.	9009	9 13	6 44 10.83	1 50 06	57 02				434013
10607	CURACAO'BN, N.W.I.	9009	9 13	8 01 11.17	2 32 06	63 14				434013
10615	MAUI'BN, HAWAII	9012	9 13	13 00 59.03	4 05 36	53 46				434013
10616	MAUI'BN, HAWAII	9012	9 13	15 22 05.86	0 47 06	43 45				434013
10613	MAINI TAL'BN, INDIA	9006	9 13	21 24 52.22	1 44 24	31 22				434013
10617	SHIRAZ'BN, IRAN	9008	9 13	23 33 00.09	2 25 18	34 58				434013
10612	SAN FERNANDO'BN, SP.	9004	9 14	3 45 04.20	2 29 48	22 31				434013
10618	JUPITER'BN, FLA.	9010	9 14	7 50 04.41	0 58 30	33 15				434013
30107	N. CANTON, OHIO	8559	9 14	7 51 54.9	2 08 25	8 55				845033
10614	CURACAO'BN, N.W.I.	9009	9 14	7 55 17.88	1 42 00	62 48				434013
10619	JUPITER'BN, FLA.	9010	9 14	10 09 05.64	3 14 06	43 01				434013
10622	MAUI'BN, HAWAII	9012	9 14	14 14 29.99	2 15 54	53 37				434013
10620	OLIFANTSFNTH'BN,S.AF	9002	9 14	17 41 02.10	17 24 54	2 37				434013
10623	TOKYO'BN, JAPAN	9005	9 14	18 26 21.70	3 09 00	26 51				434013
10624	SHIRAZ'BN, IRAN	9008	9 14	22 31 12.33	3 31 06	31 01				434013
10625	SHIRAZ'BN, IRAN	9008	9 15	0 45 34.30	3 30 54	39 05				434013
10621	SAN FERNANDO'BN, SP.	9004	9 15	2 40 16.20	1 59 06	17 10				434013
10626	JUPITER'BN, FLA.	9010	9 15	9 04 50.57	3 14 00	44 20				434013
10627	MAUI'BN, HAWAII	9012	9 15	13 07 41.08	0 44 00	49 38				434013
10633	TOKYO'BN, JAPAN	9005	9 15	17 21 07.10	2 29 48	23 41				434013
10635	SHIRAZ'BN, IRAN	9008	9 15	23 39 45.10	2 37 36	38 38				434013
30108	N. CANTON, OHIO	8559	9 16	7 58 47.8	2 21 45	13 40				845032
30109	DALLAS, TEX.	0129	9 16	10 10 33.1	3 25 12	33 18				845043
10645	MAUI'BN, HAWAII	9012	9 16	14 24 36.20	4 33 12	53 02				434013
10636	SHIRAZ'BN, IRAN	9008	9 16	22 34 56.59	1 36 54	34 35				434013
10637	SHIRAZ'BN, IRAN	9008	9 17	0 53 07.02	4 10 18	36 25				434013
10628	SAN FERNANDO'BN, SP.	9004	9 17	2 46 41.50	2 00 36	21 44				434013
10629	SAN FERNANDO'BN, SP.	9004	9 17	5 04 03.30	3 42 18	22 38				434013
10643	JUPITER'BN, FLA.	9010	9 17	6 56 41.17	3 18 00	39 19				434013
10644	JUPITER'BN, FLA.	9010	9 17	9 11 52.47	3 40 06	43 29				434013
10641	CURACAO'BN, N.W.I.	9009	9 17	9 17 56.34	3 06 06	59 32				434013
10646	MAUI'BN, HAWAII	9012	9 17	13 18 33.90	3 48 48	55 12				434013
10638	SHIRAZ'BN, IRAN	9008	9 17	23 46 30.50	2 54 42	39 35				434013
10630	SAN FERNANDO'BN, SP.	9004	9 18	3 59 07.20	3 13 06	24 47				434013
10642	CURACAO'BN, N.W.I.	9009	9 18	8 11 47.68	4 15 18	63 23				434013
10639	SHIRAZ'BN, IRAN	9008	9 18	22 41 27.44	2 17 48	39 22				434013
10634	MAINI TAL'BN, INDIA	9006	9 18	22 53 52.12	6 45 12	32 23				434013
10647	AREQUIPA'BN, PERU	9007	9 19	0 11 43.91	18 03 24	8 48				434013
10640	SHIRAZ'BN, IRAN	9008	9 19	1 00 21.19	4 35 54	30 35				434013
10631	SAN FERNANDO'BN, SP.	9004	9 19	2 52 43.00	1 52 24	23 53				434013
10632	SAN FERNANDO'BN, SP.	9004	9 19	5 10 44.40	3 54 54	17 25				434013
10648	CURACAO'BN, N.W.I.	9009	9 19	7 04 22.59	20 10 06	67 58				434013
30110	FT. WORTH, TEX.	0139	9 19	9 11 07.17	2 30 42	33 09				845013
10650	JUPITER'BN, FLA.	9010	9 19	9 22 18.07	5 35 00	32 44				434013
10649	CURACAO'BN, N.W.I.	9009	9 19	9 26 08.38	5 52 48	51 25				434013
10654	MAUI'BN, HAWAII	9012	9 19	13 22 50.87	2 14 00	56 37				434013
10651	OLIFANTSFNTH'BN,S.AF	9002	9 19	16 52 41.50	16 46 12	30 52				434013
10653	MAINI TAL'BN, INDIA	9006	9 19	21 44 05.82	1 45 30	39 43				434013
10655	SHIRAZ'BN, IRAN	9008	9 19	23 53 10.83	3 09 06	37 44				434013
10652	SAN FERNANDO'BN, SP.	9004	9 20	4 05 04.10	3 07 12	22 04				434013
10662	SHIRAZ'BN, IRAN	9008	9 20	22 48 22.24	2 41 48	40 06				434013
10657	MAINI TAL'BN, INDIA	9006	9 20	23 00 10.76	4 42 00	25 59				434013
10661	SHIRAZ'BN, IRAN	9008	9 21	1 06 26.43	4 27 24	23 44				434013
30111	DENVER, COLO.	8582	9 21	2 14 43.8			181 18	67 48		845033
10656	SAN FERNANDO'BN, SP.	9004	9 21	3 00 25.20	2 39 36	23 57				434013
10663	CURACAO'BN, N.W.I.	9009	9 21	7 10 36.52	1 55 06	68 03				434013
10658	JUPITER'BN, FLA.	9010	9 21	9 23 23.87	3 07 30	36 30				434013
10664	CURACAO'BN, N.W.I.	9009	9 21	9 34 21.53	6 23 06	39 48				434013
10660	MAINI TAL'BN, INDIA	9006	9 21	21 51 55.66	2 42 12	37 03				434013
10665	SHIRAZ'BN, IRAN	9008	9 22	0 00 15.56	3 34 12	32 18				434013
10659	SAN FERNANDO'BN, SP.	9004	9 22	4 10 57.90	2 59 12	17 30				434013
12569	MAUI'BN, HAWAII	9012	9 22	14 44 55.19	4 57 42	35 20				434013
10672	TOKYO'BN, JAPAN	9005	9 22	16 37 17.90	3 08 42	24 12				434013
10666	SHIRAZ'BN, IRAN	9008	9 22	22 54 48.59	2 47 18	38 05				434013
10667	SHIRAZ'BN, IRAN	9008	9 23	1 12 12.48	4 09 30	15 59				434013
10668	CURACAO'BN, N.W.I.	9009	9 23	7 19 09.97	3 49 30	63 44				434013
10677	MAUI'BN, HAWAII	9012	9 23	13 39 35.57	4 41 48	43 12				434013

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10673	NAINI TAL'BN, INOIA	9006	9 23	21 59 01.85	3 07 54	30 22				434013
10674	SHIRAZ'BN, IRAN	9008	9 24	0 06 50.54	3 39 24	24 42				434013
10670	SAN FERNANDO'BN, SP.	9004	9 24	4 18 03.80	3 20 16	9 34				434013
30112	OENVER, COLO.	8582	9 24	10 32 22.5			198 42	56 00		845303
10678	MAUI'BN, HAWAII	9012	9 24	12 32 16.73	2 59 42	55 55				434013
10679	MAUI'BN, HAWAII	9012	9 24	14 50 00.04	4 13 48	28 59				434013
10675	SHIRAZ'BN, IRAN	9008	9 24	23 01 25.44	2 55 42	33 00				434013
10676	SHIRAZ'BN, IRAN	9008	9 25	1 19 10.42	4 16 36	4 32				434013
30113	OENVER, COLO.	8582	9 25	9 27 27.0			192 36	60 54		845303
30114	OENVER, COLO.	8582	9 25	11 43 44.2			209 00	40 54		845303
10680	MAUI'BN, HAWAII	9012	9 25	13 44 18.51	3 41 18	40 48				434013
10684	CURACAO'BN, N.W.I.	9009	9 25	23 34 19.36	21 32 30	-38 36				434023
10683	SHIRAZ'BN, IRAN	9008	9 26	0 12 32.63	3 17 12	16 55				434013
10671	SAN FERNANDO'BN, SP.	9004	9 26	4 24 30.80	3 21 06	1 08				434013
10685	CURACAO'BN, N.W.I.	9009	9 26	8 41 54.85	5 46 12	29 21				434013
30115	OENVER, COLO.	8582	9 26	10 38 45.0			203 42	48 06		845303
10681	NAINI TAL'BN, INOIA	9006	9 26	21 02 30.36	3 42 00	25 24				434013
10686	SHIRAZ'BN, IRAN	9008	9 26	23 07 39.49	2 49 06	25 52				434013
10682	NAINI TAL'BN, INOIA	9006	9 26	23 17 20.45	3 39 30	1 34				434013
10687	SHIRAZ'BN, IRAN	9008	9 27	1 25 02.42	3 58 30	- 4 38				434013
11090	CURACAO'BN, N.W.I.	9009	9 27	7 32 11.52	3 37 12	53 59				434013
10688	NAINI TAL'BN, INOIA	9006	9 27	22 11 08.34	2 43 06	13 19				434013
10689	SHIRAZ'BN, IRAN	9008	9 28	0 19 29.00	3 36 36	3 50				434013
10690	CURACAO'BN, N.W.I.	9009	9 28	8 46 45.34	4 53 06	22 58				434013
10694	MAUI'BN, HAWAII	9012	9 28	12 46 37.33	3 44 00	39 29				434013
10692	NAINI TAL'BN, INOIA	9006	9 28	13 46 55.97	19 18 42	19 20				434013
10695	MAUI'BN, HAWAII	9012	9 28	15 03 49.55	4 13 18	1 44				434013
10696	SHIRAZ'BN, IRAN	9008	9 28	23 14 06.78	3 09 12	13 37				434013
10697	JUPITER'BN, FLA.	9010	9 29	7 57 11.74	4 21 48	15 58				434013
10693	CURACAO'BN, N.W.I.	9009	9 29	7 39 49.46	4 01 18	41 39				434013
10691	ORGAN PASS'BN, N.M.	9001	9 29	9 42 43.20	3 36 12	4 21				434013
10698	JUPITER'BN, FLA.	9010	9 29	9 49 02.78	2 59 54	- 2 22				434013
10699	TOKYO'BN, JAPAN	9005	9 29	18 05 12.70	2 31 06	- 4 31				434013
10700	NAINI TAL'BN, INOIA	9006	9 29	22 18 31.74	3 02 30	- 0 17				434013
10710	CURACAO'BN, N.W.I.	9009	9 29	23 48 01.35	18 24 24	38 18				434013
10701	SHIRAZ'BN, IRAN	9008	9 30	0 25 18.98	3 03 42	- 4 32				434013
10703	JUPITER'BN, FLA.	9010	9 30	8 47 52.31	4 05 06	- 3 30				434013
10711	CURACAO'BN, N.W.I.	9009	9 30	8 53 17.30	4 35 30	8 52				434013
10702	ORGAN PASS'BN, N.M.	9001	9 30	10 50 57.90	2 40 12	- 6 45				434013
10709	MAUI'BN, HAWAII	9012	9 30	15 10 36.76	4 05 54	-11 37				434013
10704	SHIRAZ'BN, IRAN	9008	9 30	23 21 30.33	3 05 00	1 27				434013
10707	JUPITER'BN, FLA.	9010	10 01	9 58 47.46	3 54 54	-21 02				434013
10705	CURACAO'BN, N.W.I.	9009	10 01	23 54 48.86	16 25 30	58 18				434013
10708	JUPITER'BN, FLA.	9010	10 02	8 52 52.83	3 19 00	-11 29				434013
10706	CURACAO'BN, N.W.I.	9009	10 02	8 59 35.77	4 12 18	- 5 09				434013
10712	MAUI'BN, HAWAII	9012	10 03	5 11 20.90	20 35 42	15 35				434013
10713	MAUI'BN, HAWAII	9012	10 03	14 10 50.69	3 10 24	-11 00				434013
10714	SHIRAZ'BN, IRAN	9008	10 03	15 40 43.26	21 04 42	-18 09				434013
50004	LAREDO'RAOAR, TEX.	4012	10 04	2 09 02.5			159 06	75 06	668	895307
50005	LAREDO'RAOAR, TEX.	4012	10 05	3 18 52.5			349 48	57 00	894	895307
10716	MAUI'BN, HAWAII	9012	10 05	5 17 12.01	16 41 36	34 33				434013
50006	LAREDO'RAOAR, TEX.	4012	10 05	5 32 31			8 00	63 18	1318	895307
10717	SHIRAZ'BN, IRAN	9008	10 05	15 47 12.14	20 06 36	2 15				434013
10715	JUPITER'BN, FLA.	9010	10 06	0 07 17.65	19 18 00	2 07				434013
30116	SAN JOSE, CAL.	8573	10 07	3 20 34.3			180	25 57 00		845304
10719	NAINI TAL'BN, INOIA	9006	10 07	13 47 42.73	20 20 12	23 19				434013
10718	WOOMERA'BN, AUSTR.	9003	10 07	18 46 35.29	6 54 54	16 37				434013
50007	LAREDO'RAOAR, TEX.	4012	10 08	0 10 20.5			154 12	38 00	886	895307
50008	LAREDO'RAOAR, TEX.	4012	10 08	2 22 37			349 30	52 54	761	895307
50009	LAREDO'RAOAR, TEX.	4012	10 08	4 35 48			7 30	57 12	1175	895307
10720	AREQUIPA'BN, PERU	9007	10 08	9 25 00.14	5 43 00	-12 59				434013
30117	SAN ANTONIO, TEX.	0096	10 09	1 20 06.2	19 59 00	27 01				845042
30118	WICHITA, KAN.	0028	10 09	1 20 23.8	20 06 47	-25 03				845043
10721	VILLA DOLORES'BN, ARG	9011	10 09	8 28 02.17	7 11 48	2 19				434013
10724	SHIRAZ'BN, IRAN	9008	10 09	15 59 50.41	17 06 24	34 25				434013
50010	AIKEN, S.C.	6023	10 10	0 20 58.4	20 08 48	1 34				634042
10722	ORGAN PASS'BN, N.M.	9001	10 10	2 27 52.70	20 14 24	24 57				434013
10723	AREQUIPA'BN, PERU	9007	10 10	9 32 16.62	6 08 54	-30 28				434023
10728	SHIRAZ'BN, IRAN	9008	10 10	14 57 57.77	19 23 36	31 19				434013
10726	SAN FERNANDO'BN, SP.	9004	10 10	19 10 26.20	20 57 06	-12 49				434013
30119	SAN ANTONIO, TEX.	0089	10 11	1 26 54.7	20 16 30	52 48				845002
10725	AREQUIPA'BN, PERU	9007	10 11	8 25 25.83	4 57 54	-10 22				434013
30126	YATSUSHIRO, JAPAN	0272	10 11	9 47 40			180 00	65 00		845304
30127	HIGASHIMATSUYAMA, JAP	0210	10 11	9 49 44.1	20 42 36	- 3 42				845002
10727	WOOMERA'BN, AUSTR.	9003	10 11	18 58 19.39	6 13 18	- 1 57				434013
50011	AIKEN, S.C.	6023	10 12	0 27 44.0	20 22 35	18 14				634042



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30128	YATSUSHIRO, JAPAN	0272	10 12	10 53 25			0 00	78 00		845302
10730	SHIRAZ'BN, IRAN	9008	10 12	15 04 37.96	19 00 06	52 56				434013
10729	WOOMERA'BN, AUSTR.	9003	10 12	17 53 24.60	5 58 42	8 09				434013
10731	SAN FERNANDO'BN, SP.	9004	10 12	19 16 53.30	20 37 48	-5 07				434013
30120	WICHITA, KAN.	0028	10 13	1 33 51.8	20 29 27	-10 04				845043
30121	SAN ANTONIO, TEX.	0096	10 13	1 33 57.9	22 16	62 18				845002
30131	KAGOSHIMA, JAPAN	0218	10 13	9 54 46	21 41	40 30				845002
30129	KONKU, JAPAN	0224	10 13	9 55 01	20 14	12				845002
30130	MIYAZAKI, JAPAN	0230	10 13	9 55 37	23 32	31				845002
10732	AREQUIPA'BN, PERU	9007	10 14	7 26 41.20	4 29 42	-10 34				434013
10744	VILLA DOLORES'BN, ARG	9011	10 14	7 28 50.17	4 27 54	12 38				434013
10745	VILLA DOLORES'BN, ARG	9011	10 14	7 35 47.36	6 58 36	-7 18				434013
10743	SHIRAZ'BN, IRAN	9008	10 14	15 11 21.14	19 13 00	63 39				434013
10736	WOOMERA'BN, AUSTR.	9003	10 14	17 58 52.06	5 35 48	0 53				434013
10739	SAN FERNANDO'BN, SP.	9004	10 14	19 23 11.00	19 55 54	-1 18				434013
10733	OLIFANTSFNTN'BN, S.AF	9002	10 15	0 10 27.90	5 30 24	6 59				434013
10734	OLIFANTSFNTN'BN, S.AF	9002	10 15	2 26 30.60	5 53 54	-27 50				434023
10746	VILLA DOLORES'BN, ARG	9011	10 15	6 27 00.85	5 16 12	14 43				434013
10747	VILLA DOLORES'BN, ARG	9011	10 15	6 32 03.65	6 54 00	-0 38				434013
10741	AREQUIPA'BN, PERU	9007	10 15	8 38 36.06	4 39 06	-37 48				434023
10748	VILLA DOLORES'BN, ARG	9011	10 15	8 40 22.60	3 44 24	-9 40				434013
10749	VILLA DOLORES'BN, ARG	9011	10 15	8 46 57.40	7 28 00	-23 31				434023
30132	YATSUSHIRO, JAPAN	0272	10 15	9 56 44			180 00	89 12		845302
10737	WOOMERA'BN, AUSTR.	9003	10 15	16 53 31.78	5 05 42	14 47				434013
10735	OLIFANTSFNTN'BN, S.AF	9002	10 16	1 20 10.00	5 00 36	-13 28				434013
10742	AREQUIPA'BN, PERU	9007	10 16	7 32 43.79	3 59 30	-23 46				434023
10750	VILLA DOLORES'BN, ARG	9011	10 16	7 35 09.52	4 16 12	2 26				434013
10751	VILLA DOLORES'BN, ARG	9011	10 16	7 42 51.12	7 23 30	-17 00				434013
10752	SHIRAZ'BN, IRAN	9008	10 16	15 18 12.45	20 47 42	65 10				434013
10738	WOOMERA'BN, AUSTR.	9003	10 16	18 04 52.02	5 24 42	-8 38				434013
10740	SAN FERNANDO'BN, SP.	9004	10 16	19 30 05.80	20 53 06	-4 13				434013
50012	AIKEN, S.C.	6023	10 16	23 38 15.9	19 51 27	26 20				634042
10755	OLIFANTSFNTN'BN, S.AF	9002	10 17	0 15 38.64	4 55 30	0 31				434013
10756	OLIFANTSFNTN'BN, S.AF	9002	10 17	2 30 36.54	4 51 42	-31 36				434023
10753	VILLA DOLORES'BN, ARG	9011	10 17	6 33 05.41	5 04 36	6 08				434013
10754	VILLA DOLORES'BN, ARG	9011	10 17	6 37 28.28	6 45 12	-6 57				434013
10764	AREQUIPA'BN, PERU	9007	10 17	7 39 07.05	3 40 36	-37 21				434023
30134	YATSUSHIRO, JAPAN	0272	10 17	10 06 43			0 00	87 36		845302
30135	KAGOSHIMA, JAPAN	0218	10 17	10 07 40	20 37	45 48				845002
10759	WOOMERA'BN, AUSTR.	9003	10 17	16 59 46.94	4 56 30	5 12				434013
10758	WOOMERA'BN, AUSTR.	9003	10 17	19 16 39.97	6 04 12	-27 56				434023
30122	MILWAUKEE, WISC.	0074	10 18	0 46 15.7	20 40 00	-28 00				641043
10757	OLIFANTSFNTN'BN, S.AF	9002	10 18	1 26 40.20	5 00 18	-25 48				434023
10762	TOKYO'BN, JAPAN	9005	10 18	9 06 30.60	19 29 42	5 05				434013
30137	YATSUSHIRO, JAPAN	0272	10 18	11 15 22			250 06	33 48		845302
10760	WOOMERA'BN, AUSTR.	9003	10 18	18 10 56.95	5 17 54	-18 10				434013
30136	MITAKA, JAPAN	0229	10 18	18 13 41.6			19 36	55 06		845303
10761	SAN FERNANDO'BN, SP.	9004	10 18	19 36 16.90	20 02 48	-10 34				434013
50013	AIKEN, S.C.	6023	10 18	23 44 48.0	20 08 18	24 43				634042
10763	AREQUIPA'BN, PERU	9007	10 19	3 51 53.36	4 46 18	-55 37				434023
10765	VILLA DOLORES'BN, ARG	9011	10 19	4 37 06.76	3 52 48	4 19				434013
10766	VILLA DOLORES'BN, ARG	9011	10 19	6 40 27.57	5 30 48	-7 42				434013
30139	KAGOSHIMA, JAPAN	0218	10 19	10 14 01	19 47	33 36				845002
30138	YATSUSHIRO, JAPAN	0272	10 19	10 14 18			180 00	80 30		845302
10767	WOOMERA'BN, AUSTR.	9003	10 19	17 05 50.40	4 43 42	-4 46				434013
10768	AREQUIPA'BN, PERU	9007	10 20	7 46 02.07	3 46 12	-49 43				434023
30141	YATSUSHIRO, JAPAN	0272	10 20	11 22 50			225 00	30 18		845302
30142	YATSUSHIRO, JAPAN	0272	10 20	11 22 56			225 00	30 06		845302
10769	WOOMERA'BN, AUSTR.	9003	10 20	18 17 11.47	5 20 18	-26 47				434023
30140	ASAHIKAWA, JAPAN	0201	10 20	19 13 50.2	6 15	77				845002
50014	AIKEN, S.C.	6023	10 20	23 51 24.8	20 22 36	13 03				634042
30123	CHINA LAKE, CAL.	8588	10 21	1 55 52.7			180 00 00	56 25 12		845303
10770	ORGAN PASS'BN, N.M.	9001	10 21	1 58 08.40	19 57 36	11 46				434013
30124	FT. WORTH, TEX.	0139	10 21	1 59 03.41	18 20 00	0				845013
10771	AREQUIPA'BN, PERU	9007	10 21	6 45 57.55	6 45 30	-47 25				434023
30143	YATSUSHIRO, JAPAN	0272	10 21	10 21 00			180 00	56 36		845302
10772	WOOMERA'BN, AUSTR.	9003	10 21	17 12 00.46	4 35 36	-15 22				434013
30125	FT. WORTH, TEX.	0139	10 22	0 57 31.08	20 26 00	10 54				845013
10775	AREQUIPA'BN, PERU	9007	10 22	7 52 43.32	3 52 24	-58 07				434023
30145	HIGASHIMATSUYAMA, JAP	0210	10 22	9 19 20.9	19 51 12	-14 24				845002
30144	MITAKA, JAPAN	0229	10 22	9 19 40.8			193 54	39 54		845303
10781	TOKYO'BN, JAPAN	9005	10 22	9 19 42.30	19 54 42	-13 49				434013
10779	NAINI TAL'BN, INDIA	9006	10 22	13 31 40.19	20 50 48	25 13				434013
10778	SHIRAZ'BN, IRAN	9008	10 22	15 37 54.37	20 13 48	10 11				434013
10773	WOOMERA'BN, AUSTR.	9003	10 22	18 23 20.06	5 22 54	-33 06				434023
30133	CHINA LAKE, CAL.	8588	10 23	2 02 30.9			180 00 00	44 58 12		845303
10776	AREQUIPA'BN, PERU	9007	10 23	6 48 22.80	3 43 12	-55 29				434023
10777	AREQUIPA'BN, PERU	9007	10 23	9 05 58.31	6 12 36	-63 41				434023
10774	WOOMERA'BN, AUSTR.	9003	10 23	17 18 59.69	5 04 54	-26 56				434023
10783	AREQUIPA'BN, PERU	9007	10 24	7 02 12.73	6 53 48	-63 36				434023
10782	NAINI TAL'BN, INDIA	9006	10 24	13 37 46.64	19 21 00	1 05				434013
10786	SHIRAZ'BN, IRAN	9008	10 24	15 44 26.47	19 54 00	-15 25				434013
10780	WOOMERA'BN, AUSTR.	9003	10 24	18 29 46.53	5 40 54	-36 58				434023

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10787	JUPITER'BN, FLA.	9010	10 25	0 04 59.29	19 58 30	20 48				434013
10788	AREQUIPA'BN, PERU	9007	10 25	6 54 30.87	3 16 12	-62 42				434023
10785	AREQUIPA'BN, PERU	9007	10 25	9 12 40.99	6 51 06	-63 08				434023
10788	WOOMERA'BN, AUSTR.	9003	10 25	17 24 21.58	4 32 12	-32 24				434023
10798	MAUI'BN, HAWAII	9012	10 26	5 23 25.92	22 10 18	37 08				434013
10791	NAINI TAL'BN, INOIA	9006	10 26	13 44 12.73	19 13 42	-18 44				434013
10789	WOOMERA'BN, AUSTR.	9003	10 26	16 21 13.76	4 55 12	-26 31				434023
10790	WOOMERA'BN, AUSTR.	9003	10 26	18 36 04.84	5 56 30	-37 38				434023
10793	JUPITER'BN, FLA.	9010	10 27	0 12 01.11	20 35 00	-17 57				434013
10804	OLIFANTS'BN, S.AF	9002	10 27	0 47 07.10	4 39 42	-50 43				434023
10796	VILLA DOLORES'BN, ARG	9011	10 27	7 00 00.52	2 37 18	-27 05				434023
10797	VILLA DOLORES'BN, ARG	9011	10 27	7 07 25.39	7 18 42	-32 18				434023
10792	AREQUIPA'BN, PERU	9007	10 27	9 20 17.48	7 58 48	-57 52				434023
10795	SHIRAZ'BN, IRAN	9008	10 27	14 48 26.94	20 09 00	-15 33				434013
10794	WOOMERA'BN, AUSTR.	9003	10 27	17 29 57.09	4 02 24	-36 10				434023
10800	CURACAO'BN, N.W.I.	9009	10 27	23 12 29.20	23 44 00	69 48				434013
10805	OLIFANTS'BN, S.AF	9002	10 27	23 43 39.94	5 02 30	-48 36				434023
10801	VILLA DOLORES'BN, ARG	9011	10 28	5 59 22.42	4 00 42	-29 02				434023
10802	VILLA DOLORES'BN, ARG	9011	10 28	8 13 02.57	14 33 00	-33 28				434023
10799	AREQUIPA'BN, PERU	9007	10 28	8 16 03.14	8 19 06	-59 46				434023
10803	VILLA DOLORES'BN, ARG	9011	10 28	8 19 31.55	8 23 54	-24 47				434023
10809	WOOMERA'BN, AUSTR.	9003	10 28	16 26 36.51	4 12 00	-33 04				434023
10810	WOOMERA'BN, AUSTR.	9003	10 28	18 42 12.05	6 03 30	-35 16				434023
10813	JUPITER'BN, FLA.	9010	10 29	0 17 43.13	18 48 30	-25 11				434023
10806	OLIFANTS'BN, S.AF	9002	10 29	0 55 01.30	6 25 06	-50 51				434023
10814	VILLA DOLORES'BN, ARG	9011	10 29	7 08 17.95	3 27 00	-33 53				434023
10815	VILLA DOLORES'BN, ARG	9011	10 29	7 13 36.40	7 28 48	-30 38				434023
10811	NAINI TAL'BN, INOIA	9006	10 29	12 48 09.73	19 11 48	-18 43				434013
10818	WOOMERA'BN, AUSTR.	9003	10 29	17 37 14.32	5 06 36	-38 47				434023
10812	CURACAO'BN, N.W.I.	9009	10 29	23 19 26.54	22 31 24	45 06				434013
10807	OLIFANTS'BN, S.AF	9002	10 29	23 49 22.00	4 29 24	-54 20				434023
10808	OLIFANTS'BN, S.AF	9002	10 30	2 05 19.60	6 30 48	-43 30				434023
10829	MAUI'BN, HAWAII	9012	10 30	5 36 37.53	20 01 30	-35 37				434023
10817	WOOMERA'BN, AUSTR.	9003	10 30	16 32 35.30	3 58 00	-38 14				434023
10816	WOOMERA'BN, AUSTR.	9003	10 30	18 48 35.05	6 17 42	-29 25				434023
10830	MAUI'BN, HAWAII	9012	10 31	4 32 58.27	19 04 36	7 42				434013
10827	NAINI TAL'BN, INOIA	9006	10 31	12 54 05.12	19 22 48	-25 58				434023
10826	WOOMERA'BN, AUSTR.	9003	10 31	17 43 32.18	5 18 48	-34 29				434023
10828	CURACAO'BN, N.W.I.	9009	10 31	23 25 40.46	19 55 42	5 13				434013
10824	OLIFANTS'BN, S.AF	9002	10 31	23 54 32.60	3 00 30	-56 02				434023
10825	OLIFANTS'BN, S.AF	9002	11 01	2 10 48.60	6 02 06	-37 49				434023
10831	WOOMERA'BN, AUSTR.	9003	11 01	16 38 57.92	4 12 06	-40 21				434023
10837	MAUI'BN, HAWAII	9012	11 02	4 39 19.67	18 23 48	-18 40				434013
10832	VILLA DOLORES'BN, ARG	9011	11 02	7 21 22.71	4 10 42	-30 15				434023
10833	VILLA DOLORES'BN, ARG	9011	11 02	7 26 03.89	7 35 30	-18 38				434013
10835	WOOMERA'BN, AUSTR.	9003	11 02	17 49 47.89	5 26 00	-30 31				434023
10836	CURACAO'BN, N.W.I.	9009	11 02	23 32 14.37	18 59 18	-29 53				434023
10834	OLIFANTS'BN, S.AF	9002	11 03	0 01 20.40	3 52 30	-56 43				434023
11091	WOOMERA'BN, AUSTR.	9003	11 03	16 45 33.82	4 42 36	-37 46				434023
11092	WOOMERA'BN, AUSTR.	9003	11 03	18 01 11.87	6 23 48	-9 31				434013
10838	OLIFANTS'BN, S.AF	9002	11 04	1 12 44.80	5 42 48	-39 08				434023
11093	WOOMERA'BN, AUSTR.	9003	11 04	17 56 14.80	5 36 00	-20 34				434013
10839	OLIFANTS'BN, S.AF	9002	11 05	0 08 27.19	5 08 00	-51 03				434023
10841	WOOMERA'BN, AUSTR.	9003	11 05	16 51 58.39	4 55 18	-30 44				434023
10842	WOOMERA'BN, AUSTR.	9003	11	18 02 34.35	5 35 06	-8 14				434013
10840	OLIFANTS'BN, S.AF	9002	11 07	0 14 51.60	5 12 48	-41 50				434023
10843	CURACAO'BN, N.W.I.	9009	11 07	8 53 32.12	9 13 00	-44 01				434023
11094	MAUI'BN, HAWAII	9012	11 07	15 15 05.76	10 07 18	-34 51				434023
10844	AREQUIPA'BN, PERU	9007	11 08	7 42 14.19	7 06 42	-37 49				434023
10845	WOOMERA'BN, AUSTR.	9003	11 08	18 08 10.06	5 01 18	2 26				434013
10846	CURACAO'BN, N.W.I.	9009	11 09	9 01 10.00	9 41 30	-28 31				434023
10848	MAUI'BN, HAWAII	9012	11 09	15 26 51.58	11 17 24	-9 10				434013
10847	NAINI TAL'BN, INOIA	9006	11 09	23 47 27.66	10 59 18	-21 35				434013
10861	VILLA DOLORES'BN, ARG	9011	11 10	7 47 36.25	5 05 30	15 15				434013
10854	AREQUIPA'BN, PERU	9007	11 10	7 48 20.34	6 30 42	-23 44				434023
10860	CURACAO'BN, N.W.I.	9009	11 11	9 08 33.39	9 45 30	-13 25				434013
10853	NAINI TAL'BN, INOIA	9006	11 11	23 53 25.63	10 30 30	-13 48				434013
10855	AREQUIPA'BN, PERU	9007	11 12	7 54 30.49	5 57 36	-4 57				434013
10856	CURACAO'BN, N.W.I.	9009	11 12	8 01 22.70	9 01 48	-34 49				434023
30146	TOWNSVILLE, AUSTR.	8578	11 12	9 29 57.1			202 02	50 57		845302
30147	TOWNSVILLE, AUSTR.	8578	11 12	9 29 57.2			201 54	51 02		845302
30148	TOWNSVILLE, AUSTR.	8578	11 12	9 29 57.6			201 22	51 01		845302
30149	TOWNSVILLE, AUSTR.	8578	11 12	9 29 57.6			201 19	51 02 30		845302
10849	OLIFANTS'BN, S.AF	9002	11 12	17 53 28.67	21 10 06	-22 39				434013
10850	WOOMERA'BN, AUSTR.	9003	11 12	18 20 29.46	4 36 24	23 47				434013

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10858	VILLA OLORES*BN, ARG	9011	11 13	0 09 57.75	21 34 42	17 58				434013
10857	CURACAO*BN, N.W.I.	9009	11 13	9 12 57.96	8 48 12	- 6 21				434013
10851	WOOMERA*BN, AUSTR.	9003	11 13	10 38 23.11	0 13 30	0 33				434013
10859	MAUI*BN, HAWAII	9012	11 13	15 33 44.93	9 25 36	- 4 24				434013
10863	MAUI*BN, HAWAII	9012	11 14	14 29 26.18	9 34 30	-14 42				434013
10862	CURACAO*BN, N.W.I.	9009	11 15	7 03 04.72	8 45 12	-37 03				434023
10864	TOKYO*BN, JAPAN	9005	11 15	19 52 28.90	9 47 24	-10 15				434013
10865	CURACAO*BN, N.W.I.	9009	11 16	8 15 16.92	8 53 06	- 2 43				434013
10866	WOOMERA*BN, AUSTR.	9003	11 16	11 53 06.40	21 20 30	-40 14				434023
10871	VILLA OLORES*BN, ARG	9011	11 17	0 21 38.25	19 28 24	- 7 26				434013
10867	SHIRAZ*BN, IRAN	9008	11 17	1 06 14.91	9 44 24	- 4 31				434013
10868	CURACAO*BN, N.W.I.	9009	11 17	7 10 33.76	8 53 18	-19 23				434013
10869	CURACAO*BN, N.W.I.	9009	11 17	9 19 29.79	5 27 48	- 2 20				434013
10870	CURACAO*BN, N.W.I.	9009	11 17	9 27 49.59	9 18 48	33 57				434013
10872	WOOMERA*BN, AUSTR.	9003	11 17	10 51 29.69	1 44 24	-42 50				434023
30150	PUEBLA, MEX.	0900	11 17	11 33 58.9	8 52 24	17 22				845043
10873	MAUI*BN, HAWAII	9012	11 17	13 30 15.62	9 03 24	-19 13				434013
10879	SAN FERNANDO*BN, SP.	9004	11 18	4 14 21.40	9 31 54	-17 05				434013
10874	CURACAO*BN, N.W.I.	9009	11 18	8 16 45.75	6 00 30	-11 57				434013
10875	CURACAO*BN, N.W.I.	9009	11 18	8 19 14.39	7 23 36	2 36				434013
10885	JUPITER*BN, FLA.	9010	11 18	10 31 20.53	7 33 48	- 1 26				434013
10886	JUPITER*BN, FLA.	9010	11 18	10 34 15.80	8 46 54	9 24				434013
10887	JUPITER*BN, FLA.	9010	11 18	10 38 28.85	10 36 18	21 33				434013
10894	MAUI*BN, HAWAII	9012	11 18	14 40 30.56	8 38 30	6 25				434013
10878	WOOMERA*BN, AUSTR.	9003	11 19	10 57 25.30	0 07 00	-52 50				434023
30151	WOOMERA, AUSTR.	0603	11 19	10 57 36.0			156 18	66 30		845302
10876	ORGAN PASS*BN, N.M.	9001	11 19	11 38 25.80	9 23 12	- 0 55				434013
30154	PUEBLA, MEX.	0900	11 19	11 39 37.2	8 57 06	32 42				845043
10880	TOKYO*BN, JAPAN	9005	11 19	17 49 43.70	9 16 18	-20 03				434013
10881	TOKYO*BN, JAPAN	9005	11 19	20 05 31.40	10 08 18	9 38				434013
10883	SHIRAZ*BN, IRAN	9008	11 20	0 06 25.61	8 59 00	-10 32				434013
10882	MAINI TAL*BN, INOIA	9006	11 20	0 15 38.65	9 35 30	21 43				434013
10891	JUPITER*BN, FLA.	9010	11 20	8 23 57.13	8 03 48	-23 12				434023
10884	CURACAO*BN, N.W.I.	9009	11 20	8 26 16.82	7 24 30	25 22				434013
10892	JUPITER*BN, FLA.	9010	11 20	8 26 22.56	9 05 48	-12 29				434013
10893	JUPITER*BN, FLA.	9010	11 20	8 29 22.11	10 10 54	0 25				434013
10877	ORGAN PASS*BN, N.M.	9001	11 20	10 33 33.70	9 02 36	-13 35				434013
10888	JUPITER*BN, FLA.	9010	11 20	10 38 47.84	7 54 48	15 28				434013
10889	JUPITER*BN, FLA.	9010	11 20	10 42 57.75	9 57 06	28 20				434013
10890	JUPITER*BN, FLA.	9010	11 20	10 47 09.76	11 53 30	32 55				434013
10899	VILLA OLORES*BN, ARG	9011	11 21	0 35 07.07	20 10 12	-28 34				434023
10900	VILLA OLORES*BN, ARG	9011	11 21	0 38 01.63	4 05 24	-24 28				434023
10896	SHIRAZ*BN, IRAN	9008	11 21	1 17 20.44	9 10 24	14 02				434013
10903	JUPITER*BN, FLA.	9010	11 21	9 30 32.69	5 56 48	-13 03				434013
10904	JUPITER*BN, FLA.	9010	11 21	9 33 07.31	7 11 12	- 2 08				434013
10897	CURACAO*BN, N.W.I.	9009	11 21	9 34 40.69	5 52 36	36 03				434013
10898	CURACAO*BN, N.W.I.	9009	11 21	9 37 27.41	7 16 54	48 23				434013
10905	JUPITER*BN, FLA.	9010	11 21	9 39 07.92	10 11 48	20 17				434013
30152	WOOMERA, AUSTR.	0603	11 21	11 03 48.4			170 06	69 36		845302
10901	WOOMERA*BN, AUSTR.	9003	11 21	11 03 53.26	0 53 54	-50 58				434023
10895	ORGAN PASS*BN, N.M.	9001	11 21	11 44 21.08	9 17 42	8 50				434013
10906	MAUI*BN, HAWAII	9012	11 21	13 41 29.69	8 07 00	2 00				434013
10909	SHIRAZ*BN, IRAN	9008	11 22	0 11 48.41	8 30 42	- 2 37				434013
10902	MAINI TAL*BN, INOIA	9006	11 22	0 21 02.60	9 13 00	28 48				434013
10910	CURACAO*BN, N.W.I.	9009	11 22	8 31 54.70	6 34 48	37 46				434013
10911	JUPITER*BN, FLA.	9010	11 22	8 34 18.83	9 47 00	6 57				434013
10912	JUPITER*BN, FLA.	9010	11 22	8 35 54.41	10 27 06	11 56				434013
10907	ORGAN PASS*BN, N.M.	9001	11 22	10 39 23.80	8 51 24	- 4 53				434013
30153	N. CANTON, OHIO	8559	11 22	10 47 54.2	8 19 23	5 04				845013
10908	ORGAN PASS*BN, N.M.	9001	11 22	12 55 52.90	10 01 06	27 40				434013
10913	MAINI TAL*BN, INOIA	9006	11 22	23 14 36.73	8 02 06	13 48				434013
10914	SHIRAZ*BN, IRAN	9008	11 23	1 22 18.15	8 33 36	21 33				434013
10915	ORGAN PASS*BN, N.M.	9001	11 23	9 36 26.60	9 10 24	-11 35				434013
10919	JUPITER*BN, FLA.	9010	11 23	9 42 01.09	8 30 00	22 43				434013
10920	JUPITER*BN, FLA.	9010	11 23	9 42 53.11	9 01 00	25 33				434013
10918	CURACAO*BN, N.W.I.	9009	11 23	9 44 53.27	7 53 48	59 58				434013
10921	WOOMERA*BN, AUSTR.	9003	11 23	11 09 45.77	23 10 00	-41 40				434023
30155	WOOMERA, AUSTR.	0603	11 23	11 10 07.2			170 00	80 48		845302
10916	ORGAN PASS*BN, N.M.	9001	11 23	11 42 34.50	5 35 12	- 8 58				434013
11001	ORGAN PASS*BN, N.M.	9001	11 23	11 50 13.01	9 13 36	18 00				434013
10917	ORGAN PASS*BN, N.M.	9001	11 23	11 55 25.70	11 42 42	25 04				434013
10924	JUPITER*BN, FLA.	9010	11 24	10 47 44.30	6 06 42	20 58				434013
10925	JUPITER*BN, FLA.	9010	11 24	10 51 29.37	7 59 54	36 03				434013
10926	JUPITER*BN, FLA.	9010	11 24	10 55 23.89	10 27 42	43 12				434013
10955	MAUI*BN, HAWAII	9012	11 24	14 57 52.07	7 17 48	42 10				434013
10953	VILLA OLORES*BN, ARG	9011	11 25	0 49 30.61	1 00 30	-10 33				434013
10922	SAN FERNANDO*BN, SP.	9004	11 25	3 27 13.90	8 48 48	- 7 03				434013
10923	SAN FERNANDO*BN, SP.	9004	11 25	5 41 44.50	9 25 48	19 25				434013
10946	JUPITER*BN, FLA.	9010	11 25	9 44 49.80	6 21 18	19 49				434013
30156	N. CANTON, OHIO	8559	11 25	9 48 32.3	8 38 08	- 0 02				845013
10947	JUPITER*BN, FLA.	9010	11 25	9 49 33.44	9 27 12	36 58				434013

085 NO	STATION	STA NO	OATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10948	JUPITER*BN, FLA.	9010	11 25	9 51 30.38	10 41 36	38 17				434013
10931	WOOMERA*BN, AUSTR.	9003	11 25	11 16 21.46	0 09 54	-20 29				434013
10928	ORGAN PASS*BN, N.M.	9001	11 25	11 51 39.41	6 41 30	11 12				434013
10929	ORGAN PASS*BN, N.M.	9001	11 25	11 56 08.14	9 14 42	25 57				434013
30157	FT. WORTH, TEX.	0139	11 25	11 59 26.0	9 45 00	30 54				845013
10930	ORGAN PASS*BN, N.M.	9001	11 25	12 02 49.13	12 31 48	27 26				434013
10954	VILLA OLORES*BN, ARG	9011	11 25	23 46 39.59	1 01 30	-29 40				434023
10934	SAN FERNANDO*BN, SP.	9004	11 26	4 37 54.00	9 24 24	13 08				434013
10940	JUPITER*BN, FLA.	9010	11 26	8 43 32.24	8 04 54	21 53				434013
10939	CURACAO*BN, N.W.I.	9009	11 26	8 46 01.83	7 11 36	63 47				434013
10941	JUPITER*BN, FLA.	9010	11 26	8 46 41.22	10 11 18	29 37				434013
10942	JUPITER*BN, FLA.	9010	11 26	8 49 13.30	11 24 42	30 13				434013
10943	JUPITER*BN, FLA.	9010	11 26	10 52 19.44	5 31 30	22 20				434013
30158	FT. WORTH, TEX.	0139	11 26	10 53 47.8	8 46 00	22 39				845013
10944	JUPITER*BN, FLA.	9010	11 26	10 57 38.65	8 06 18	42 01				434013
10945	JUPITER*BN, FLA.	9010	11 26	11 01 29.51	10 46 12	46 14				434013
10966	MAUI*BN, HAWAII	9012	11 26	15 05 18.90	8 14 54	54 42				434013
10952	VILLA OLORES*BN, ARG	9011	11 27	0 55 25.02	23 49 12	6 59				434013
10949	JUPITER*BN, FLA.	9010	11 27	9 50 36.77	5 58 54	27 39				434013
10950	JUPITER*BN, FLA.	9010	11 27	9 54 24.74	8 40 00	42 33				434013
10951	JUPITER*BN, FLA.	9010	11 27	9 55 32.77	9 34 06	43 57				434013
10956	MAUI*BN, HAWAII	9012	11 27	14 00 24.89	7 33 54	49 14				434013
11089	TOKYO*BN, JAPAN	9005	11 27	18 12 01.90	8 23 42	7 27				434013
10936	TOKYO*BN, JAPAN	9005	11 27	20 27 26.40	9 44 18	26 47				434013
10938	NAINI TAL*BN, INDIA	9006	11 27	22 22 45.72	7 47 00	26 11				434013
10962	VILLA OLORES*BN, ARG	9011	11 27	23 52 40.69	0 06 48	-15 28				434013
10935	SAN FERNANDO*BN, SP.	9004	11 28	4 43 06.50	9 04 00	17 45				434013
10958	JUPITER*BN, FLA.	9010	11 28	8 49 53.16	8 13 00	35 15				434013
10957	WOOMERA*BN, AUSTR.	9003	11 28	10 19 33.86	23 31 24	-23 38				434023
10933	ORGAN PASS*BN, N.M.	9001	11 28	10 56 46.96	8 18 18	22 58				434013
10959	JUPITER*BN, FLA.	9010	11 28	11 03 50.95	8 21 42	45 30				434013
10960	JUPITER*BN, FLA.	9010	11 28	11 04 59.88	9 12 24	47 12				434013
10961	JUPITER*BN, FLA.	9010	11 28	11 07 59.70	11 21 00	45 42				434013
10967	MAUI*BN, HAWAII	9012	11 28	15 11 12.59	8 07 54	59 28				434013
10964	TOKYO*BN, JAPAN	9005	11 28	19 22 30.60	9 01 12	23 16				434013
10965	NAINI TAL*BN, INDIA	9006	11 28	23 32 24.52	7 38 48	37 56				434013
10968	VILLA OLORES*BN, ARG	9011	11 29	1 00 59.80	22 34 30	15 40				434013
10963	SAN FERNANDO*BN, SP.	9004	11 29	5 53 42.80	9 48 18	24 45				434013
10969	JUPITER*BN, FLA.	9010	11 29	9 57 25.45	6 18 24	38 05				434013
10971	JUPITER*BN, FLA.	9010	11 29	9 59 07.51	7 26 30	45 08				434013
10970	JUPITER*BN, FLA.	9010	11 29	10 01 15.81	9 30 30	48 10				434013
10972	WOOMERA*BN, AUSTR.	9003	11 29	11 28 06.33	22 25 30	12 48				434013
30159	FT. WORTH, TEX.	0139	11 29	12 11 21.0	10 08 00	33 54				845013
10976	OLIFANTSFNTN*BN, S.AF	9002	11 29	17 43 15.00	2 20 30	-34 07				434023
10974	NAINI TAL*BN, INDIA	9006	11 29	22 28 47.97	7 42 00	35 34				434013
10975	VILLA OLORES*BN, ARG	9011	11 29	23 58 46.48	23 31 42	2 45				434013
10973	SAN FERNANDO*BN, SP.	9004	11 30	4 48 06.60	8 31 30	20 25				434013
10978	JUPITER*BN, FLA.	9010	11 30	8 55 47.28	8 02 48	44 16				434013
10979	JUPITER*BN, FLA.	9010	11 30	8 57 51.46	10 02 06	44 46				434013
10977	WOOMERA*BN, AUSTR.	9003	11 30	10 25 40.1	23 01 54	-3 52				434013
11095	MAUI*BN, HAWAII	9012	11 30	15 18 59.67	10 07 54	62 31				434013
11096	MAUI*BN, HAWAII	9012	12 01	14 14 07.33	9 27 12	64 10				434013
10981	OLIFANTSFNTN*BN, S.AF	9002	12 01	17 48 11.59	22 23 42	-22 55				434013
10982	WOOMERA*BN, AUSTR.	9003	12 02	10 31 54.36	22 52 24	14 17				434013
10987	NAINI TAL*BN, INDIA	9006	12 02	23 45 28.64	8 48 12	42 18				434013
10989	SHIRAZ*BN, IRAN	9008	12 03	1 53 44.38	10 10 18	38 16				434013
10984	SAN FERNANDO*BN, SP.	9004	12 03	6 05 55.20	10 19 42	18 05				434013
10992	TOKYO*BN, JAPAN	9005	12 03	18 30 34.60	9 06 24	24 15				434013
10990	SHIRAZ*BN, IRAN	9008	12 04	0 48 13.67	8 41 00	43 55				434013
10983	WOOMERA*BN, AUSTR.	9003	12 04	10 38 02.49	22 35 12	26 03				434013
10993	NAINI TAL*BN, INDIA	9006	12 04	23 54 26.95	11 12 48	31 26				434013
10991	SHIRAZ*BN, IRAN	9008	12 05	2 00 24.38	10 43 36	29 58				434013
10986	SAN FERNANDO*BN, SP.	9004	12 05	6 11 45.20	10 21 00	11 00				434013
10994	ORGAN PASS*BN, N.M.	9001	12 06	11 21 11.90	9 07 06	31 38				434013
10996	MAUI*BN, HAWAII	9012	12 06	15 37 09.35	10 34 42	51 39				434013
10999	MAUI*BN, HAWAII	9012	12 07	14 33 46.32	11 29 00	55 10				434013
11005	TOKYO*BN, JAPAN	9005	12 07	18 43 19.50	9 58 12	16 24				434013
11000	NAINI TAL*BN, INDIA	9006	12 07	22 53 53.98	9 11 48	38 34				434013
10998	SHIRAZ*BN, IRAN	9008	12 08	1 01 00.46	9 40 30	32 30				434013
10997	SAN FERNANDO*BN, SP.	9004	12 08	5 12 59.50	9 43 54	8 07				434013
11097	MAUI*BN, HAWAII	9012	12 08	15 45 17.99	11 51 42	32 29				434013
11006	TOKYO*BN, JAPAN	9005	12 08	19 53 05.60	10 04 36	3 09				434013
11012	SHIRAZ*BN, IRAN	9008	12 08	23 58 39.17	10 56 36	32 16				434013
11009	NAINI TAL*BN, INDIA	9006	12 09	0 04 49.91	10 05 30	16 08				434013
11002	JUPITER*BN, FLA.	9010	12 09	10 29 32.98	8 36 30	28 51				434013
11003	JUPITER*BN, FLA.	9010	12 09	10 29 40.98	8 43 06	28 33				434013
11007	TOKYO*BN, JAPAN	9005	12 09	18 48 07.50	9 03 42	10 48				434013
11010	NAINI TAL*BN, INDIA	9006	12 09	23 03 18.08	11 38 18	14 53				434013
11008	TOKYO*BN, JAPAN	9005	12 10	19 58 13.80	9 32 00	-5 08				434013
11011	NAINI TAL*BN, INDIA	9006	12 11	0 11 24.57	10 19 00	1 07				434013

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11014	JUPITER'BN. FLA.	9010	12 11	10 33 01.70	6 50 24	20 35				434013
11015	JUPITER'BN. FLA.	9010	12 11	10 36 27.11	9 22 48	12 19				434013
11016	JUPITER'BN. FLA.	9010	12 11	10 38 34.10	10 37 48	4 57				434013
11017	MAUI'BN. HAWAII	9012	12 11	14 45 21.89	10 38 24	41 58				434013
11023	MAINI TAL'BN. INOIA	9006	12 11	23 07 06.80	10 04 36	11 36				434013
11018	SHIRAZ'BN. IRAN	9008	12 12	1 12 52.96	9 25 06	8 45				434013
11004	SAN FERNANDO'BN. SP.	9004	12 12	5 24 19.80	9 16 12	-10 08				434013
11022	MAUI'BN. HAWAII	9012	12 12	15 55 43.84	10 19 36	11 05				434013
11013	SHIRAZ'BN. IRAN	9008	12 13	0 10 57.42	10 49 24	10 23				434013
11019	JUPITER'BN. FLA.	9010	12 13	10 40 31.11	7 48 42	5 48				434013
11021	JUPITER'BN. FLA.	9010	12 13	10 45 36.34	10 54 24	-12 39				434013
11029	TOKYO'BN. JAPAN	9005	12 13	18 59 59.80	8 51 48	-9 55				434013
11024	SHIRAZ'BN. IRAN	9008	12 14	1 16 13.41	9 28 00	-6 29				434013
11025	JUPITER'BN. FLA.	9010	12 14	9 37 38.16	7 55 24	13 58				434013
11026	JUPITER'BN. FLA.	9010	12 14	9 40 30.44	10 21 48	0 31				434013
11027	JUPITER'BN. FLA.	9010	12 14	9 44 04.73	12 09 12	-11 32				434013
11030	TOKYO'BN. JAPAN	9005	12 14	20 08 25.90	8 27 06	-19 08				434013
11028	SHIRAZ'BN. IRAN	9008	12 15	0 16 04.23	9 53 06	1 59				434013
11038	TOKYO'BN. JAPAN	9005	12 15	19 05 51.90	8 38 24	-19 41				434013
11032	SHIRAZ'BN. IRAN	9008	12 16	1 24 33.09	8 48 42	-16 35				434013
11031	SAN FERNANDO'BN. SP.	9004	12 16	5 35 19.10	8 32 24	-25 02				434013
11033	JUPITER'BN. FLA.	9010	12 16	9 43 44.35	7 56 06	-2 42				434013
11034	JUPITER'BN. FLA.	9010	12 16	9 46 26.04	9 56 12	-14 24				434013
11035	JUPITER'BN. FLA.	9010	12 16	9 51 06.54	12 12 42	-25 50				434013
11036	ORGAN PASS'BN. N.M.	9001	12 16	11 51 47.16	9 08 42	-23 34				434013
11046	CURACAO'BN. N.W.I.	9009	12 16	23 50 04.48	1 05 42	2 17				434013
11045	SHIRAZ'BN. IRAN	9008	12 17	0 23 17.91	10 20 42	-18 36				434013
11051	MAUI'BN. HAWAII	9012	12 17	15 03 06.08	9 08 36	-7 18				434013
11052	MAUI'BN. HAWAII	9012	12 18	5 06 00.52	2 27 48	-30 39				434023
30161	CINCINNATI. OHIO	0050	12 18	8 59 14	11 49 30	-19 56				845004
11048	JUPITER'BN. FLA.	9010	12 18	9 49 47.26	7 46 30	-16 21				434013
11049	JUPITER'BN. FLA.	9010	12 18	9 51 08.71	8 42 42	-22 30				434013
11050	JUPITER'BN. FLA.	9010	12 18	9 53 25.09	10 08 00	-30 11				434023
11047	CURACAO'BN. N.W.I.	9009	12 18	9 56 48.72	9 55 36	-12 20				434013
11037	ORGAN PASS'BN. N.M.	9001	12 18	11 57 48.31	8 54 18	-32 38				434023
11053	JUPITER'BN. FLA.	9010	12 18	23 53 50.03	0 51 06	-45 02				434023
11054	JUPITER'BN. FLA.	9010	12 18	23 55 04.64	2 06 00	-39 18				434023
30165	PUEBLA. MEX.	0900	12 20	0 59 27.4	1 09 06	-20 34				845013
30166	PUEBLA. MEX.	0900	12 20	0 59 32.4	1 15 30	-19 52				845013
11059	MAUI'BN. HAWAII	9012	12 20	5 10 59.48	0 10 48	-21 13				434013
11057	JUPITER'BN. FLA.	9010	12 20	9 56 07.01	7 45 48	-28 08				434023
11058	JUPITER'BN. FLA.	9010	12 20	9 57 28.63	8 34 30	-33 43				434023
11055	CURACAO'BN. N.W.I.	9009	12 21	0 02 37.60	22 36 06	58 08				434013
11060	ORGAN PASS'BN. N.M.	9001	12 21	2 08 20.98	2 00 24	-32 16				434023
11056	CURACAO'BN. N.W.I.	9009	12 21	8 58 21.49	9 05 48	-14 18				434013
30163	QUEZON CITY. PH.I.S.	0500	12 21	10 26 27			328 30	81 30		845302
11061	MAUI'BN. HAWAII	9012	12 21	15 15 37.47	8 37 54	-35 45				434023
11069	JUPITER'BN. FLA.	9010	12 23	0 07 25.45	1 10 54	-9 33				434013
11064	CURACAO'BN. N.W.I.	9009	12 23	0 09 10.30	21 47 12	69 51				434013
11065	ORGAN PASS'BN. N.M.	9001	12 23	2 14 38.28	1 52 48	-19 22				434013
11066	SHIRAZ'BN. IRAN	9008	12 23	14 44 47.05	2 02 30	-18 14				434013
30162	SAN JOSE. CAL.	8573	12 24	3 20 06.2			180	26 45 00		845304
11070	MAUI'BN. HAWAII	9012	12 24	5 24 46.92	0 52 30	50 54				434013
11076	SHIRAZ'BN. IRAN	9008	12 24	15 53 07.19	0 20 12	6 32				434013
11098	TOKYO'BN. JAPAN	9005	12 26	9 42 45.20	2 26 54	-8 24				434013
11073	MAINI TAL'BN. INOIA	9006	12 26	13 53 39.25	1 40 24	28 39				434013
11077	SHIRAZ'BN. IRAN	9008	12 26	15 58 27.59	22 58 24	17 39				434013
30164	FORT WORTH. TEX.	0139	12 27	2 26 56.4	23 51 36	9 03				845014
11074	MAINI TAL'BN. INOIA	9006	12 27	12 50 44.29	2 09 42	13 02				434013
11078	SHIRAZ'BN. IRAN	9008	12 27	14 56 34.62	1 03 48	15 16				434013
11072	CURACAO'BN. N.W.I.	9009	12 27	23 18 37.16	22 04 54	77 28				434013
11071	ORGAN PASS'BN. N.M.	9001	12 28	1 22 41.60	0 02 18	-2 10				434013
11082	MAINI TAL'BN. INOIA	9006	12 28	13 59 44.49	1 20 12	44 13				434013
11075	SHIRAZ'BN. IRAN	9008	12 28	16 05 18.59	23 38 24	38 30				434013
11079	JUPITER'BN. FLA.	9010	12 29	0 24 10.03	22 01 18	31 08				434013
11080	JUPITER'BN. FLA.	9010	12 29	0 25 06.86	22 53 54	41 49				434013
11081	JUPITER'BN. FLA.	9010	12 29	0 27 00.85	3 02 24	57 09				434013
30167	SACRAMENTO. CAL.	8590	12 29	2 29 11.2	0 42 42	-12 38				845013
30168	VAN NUYS. CAL.	0113	12 29	2 30 07			179 00	61 36		845303
11085	MAINI TAL'BN. INOIA	9006	12 29	12 56 05.97	0 49 48	26 43				434013
11084	SAN FERNANDO'BN. SP.	9004	12 29	19 14 56.00	1 34 54	2 22				434013
30171	HIGASHIMATSUYAMA. JAP	0210	12 30	9 54 20.2			180 00	63 18		845303
11086	TOKYO'BN. JAPAN	9005	12 30	9 54 37.70	2 07 42	11 42				434013
30169	TERRE HAUTE. INO.	8127	12 31	0 30 45.2	1 18 53	-5 05				845044
30170	CHINA LAKE. CAL.	8588	12 31	2 36 41.1			171 04 12	65 54 00		845303
11087	TOKYO'BN. JAPAN	9005	12 31	8 50 30.10	0 38 06	5 39				434013
11088	SHIRAZ'BN. IRAN	9008	12 31	15 08 56.54	1 17 48	44 38				434013

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10821	TOKYO'BN, JAPAN	9005	6 20	17 22 27.80	21 15 30	3 30				434013
10822	TOKYO'BN, JAPAN	9005	7 17	15 34 16.10	19 31 30	7 40				434013
10819	OLIFANTSFNTN'BN,S.AF	9002	7 28	0 57 32.03	0 17 36	-14 28				434013
10820	OLIFANTSFNTN'BN,S.AF	9002	7 28	3 15 25.05	1 31 30	-41 57				434023
10823	MAUI'BN, HAWAII	9012	7 29	7 37 25.65	17 35 54	41 42				434013

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CORRECTIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAU  
SPECIAL REPORTS FOR THE YEAR 1960.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
01284	VILLA DOLORES'BN,ARG	9011	5 28	8 35 55.35	20 24 24	1 29				434013
01354	AREQUIPA'BN, PERU	9007	6 09	0 03 00.00	9 41 36	-46 29				434023
30096	WALNUT CREEK, CAL.	8556	7 29	5 33 02.0	17 55 00	-13 36				845004
10405	VILLA DOLORES'BN,ARG	9011	8 03	7 39 23.87	1 49 00	-31 30				434023
10428	VILLA DOLORES'BN,ARG	9011	8 08	6 48 50.00	1 38 54	-32 38				434023

## 1959 ALPHA 2

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10410	CURACAO'BN, N.W.I.	9009	9 01	0 32 25.36	19 38 00	36 59				434013
30246	DENVER, COLO.	8582	9 01	2 36 09	17 01 54	-7 54				845004
10411	MAUI'BN, HAWAII	9012	9 01	7 04 01.02	18 57 54	5 22				434013
10412	VILLA DOLORES'BN,ARG	9011	9 01	7 53 07.20	0 01 30	-26 45				434023
10413	VILLA DOLORES'BN,ARG	9011	9 01	8 02 20.60	4 48 00	-31 45				434023
10407	WOOMERA'BN, AUSTR.	9003	9 01	18 50 36.86	3 58 42	-36 30				434023
10408	SAN FERNANDO'BN, SP.	9004	9 01	19 54 52.80	17 19 48	-6 21				434013
10406	OLIFANTSFNTN'BN,S.AF	9002	9 02	1 12 15.40	1 23 48	-43 30				434023
10425	VILLA DOLORES'BN,ARG	9011	9 02	7 39 04.66	23 58 18	-27 19				434023
10419	AREQUIPA'BN, PERU	9007	9 02	7 40 12.84	1 01 12	-57 09				434023
10426	VILLA DOLORES'BN,ARG	9011	9 02	7 48 27.88	4 30 00	-32 10				434023
10421	CURACAO'BN, N.W.I.	9009	9 03	0 06 25.12	19 54 18	29 52				434013
10436	OLIFANTSFNTN'BN,S.AF	9002	9 03	3 20 51.80	3 16 36	-45 46				434023
10433	MAUI'BN, HAWAII	9012	9 03	6 35 17.62	17 48 06	8 46				434013
10420	AREQUIPA'BN, PERU	9007	9 03	9 51 12.92	4 44 30	-62 11				434023
10417	WOOMERA'BN, AUSTR.	9003	9 03	18 22 01.81	3 11 48	-36 51				845004
10422	CURACAO'BN, N.W.I.	9009	9 03	23 51 30.36	19 02 00	37 20				434013
10414	OLIFANTSFNTN'BN,S.AF	9002	9 04	0 44 58.20	1 25 06	-44 16				434023
10427	VILLA DOLORES'BN,ARG	9011	9 04	7 13 14.52	0 25 48	-31 46				434023
10428	VILLA DOLORES'BN,ARG	9011	9 04	7 23 15.04	5 02 18	-28 02				434023
10429	VILLA DOLORES'BN,ARG	9011	9 04	9 33 41.41	1 19 36	-29 22				434023
10430	VILLA DOLORES'BN,ARG	9011	9 04	9 39 53.39	4 43 42	-23 18				434023
10418	WOOMERA'BN, AUSTR.	9003	9 04	18 06 15.79	1 53 00	-37 05				434023
10415	OLIFANTSFNTN'BN,S.AF	9002	9 05	0 31 11.30	1 23 00	-44 24				434023
10423	CURACAO'BN, N.W.I.	9009	9 05	1 57 27.28	18 12 42	-8 30				434013
10416	OLIFANTSFNTN'BN,S.AF	9002	9 05	2 54 10.50	3 28 24	-42 21				434023
10431	VILLA DOLORES'BN,ARG	9011	9 05	9 17 43.99	0 27 36	-28 08				434023
10432	VILLA DOLORES'BN,ARG	9011	9 05	9 26 21.09	4 30 06	-22 22				434013
10424	CURACAO'BN, N.W.I.	9009	9 06	1 45 45.07	18 45 12	-17 38				434013
10434	AREQUIPA'BN, PERU	9007	9 06	1 47 44.29	19 54 48	29 54				434013
10435	MAUI'BN, HAWAII	9012	9 06	5 55 15.50	17 23 54	0 41				434013
10440	AREQUIPA'BN, PERU	9007	9 07	1 34 42.24	19 58 36	27 21				434013
10437	VILLA DOLORES'BN,ARG	9011	9 07	6 34 15.78	1 24 30	-35 00				434023
10438	VILLA DOLORES'BN,ARG	9011	9 07	8 57 39.59	3 31 06	-24 36				434023
10439	WOOMERA'BN, AUSTR.	9003	9 07	19 47 55.64	3 39 18	-21 35				434013
11049	OLIFANTSFNTN'BN,S.AF	9002	9 07	23 51 24.69	2 04 54	-44 28				434023
10441	CURACAO'BN, N.W.I.	9009	9 08	1 18 27.90	18 20 30	-21 43				434013
10442	AREQUIPA'BN, PERU	9007	9 08	1 21 45.28	20 05 18	23 53				434013
10443	VILLA DOLORES'BN,ARG	9011	9 08	6 21 32.21	1 50 48	-35 02				434023
10444	VILLA DOLORES'BN,ARG	9011	9 08	6 27 51.10	4 20 06	-27 29				434023
10448	MAUI'BN, HAWAII	9012	9 08	7 49 57.39	18 06 18	-36 38				434023
10445	VILLA DOLORES'BN,ARG	9011	9 08	8 44 55.09	4 10 12	-20 45				434013
10447	CURACAO'BN, N.W.I.	9009	9 09	1 02 47.50	17 09 16	-14 57				434013
10449	AREQUIPA'BN, PERU	9007	9 09	1 10 31.59	20 49 00	13 33				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	OECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10446	OLIFANTSFNTN'BN,S.AF	9002	9 09	1 58 38.69	2 46 18	-40 10				434023
10450	OLIFANTSFNTN'BN,S.AF	9002	9 09	18 30 05.80	21 06 36	18 59				434013
10453	AREQUIPA'BN, PERU	9007	9 10	0 56 24.73	20 26 30	14 41				434013
10454	AREQUIPA'BN, PERU	9007	9 10	8 15 26.31	3 51 18	-51 56				434023
10451	OLIFANTSFNTN'BN,S.AF	9002	9 10	18 17 39.10	21 21 48	14 09				434013
10452	WOOMERA'BN, AUSTR.	9003	9 10	19 06 28.36	3 11 54	-20 08				434013
10456	CURACAO'BN, N.W.I.	9009	9 11	0 38 26.76	17 58 48	-31 06				434023
10457	VILLA OLORES'BN,ARG	9011	9 11	7 57 58.48	1 15 30	-28 05				434023
10455	AREQUIPA'BN, PERU	9007	9 11	7 58 30.30	2 06 36	-54 41				434023
10458	VILLA OLORES'BN,ARG	9011	9 11	8 02 44.92	3 10 30	-21 30				434023
10466	OLIFANTSFNTN'BN,S.AF	9002	9 11	18 03 08.10	20 59 30	16 49				434013
10461	AREQUIPA'BN, PERU	9007	9 12	0 29 25.87	20 21 24	12 18				434013
10460	OLIFANTSFNTN'BN,S.AF	9002	9 12	1 17 15.50	2 35 54	-37 13				434023
10464	VILLA OLORES'BN,ARG	9011	9 12	5 29 05.96	2 46 42	-30 55				434023
10462	AREQUIPA'BN, PERU	9007	9 12	7 46 49.33	3 11 06	-51 08				434023
10465	VILLA OLORES'BN,ARG	9011	9 12	7 48 06.53	2 44 30	-22 30				434013
10463	CURACAO'BN, N.W.I.	9009	9 13	0 10 52.81	17 11 36	-34 53				434023
10467	AREQUIPA'BN, PERU	9007	9 13	0 14 08.19	19 27 12	20 47				434013
10459	OLIFANTSFNTN'BN,S.AF	9002	9 13	1 02 31.80	2 09 24	-37 17				434023
10470	OLIFANTSFNTN'BN,S.AF	9002	9 13	17 35 45.30	20 43 06	16 47				434013
10468	WOOMERA'BN, AUSTR.	9003	9 13	19 22 27.99	1 59 06	-22 27				434013
10469	CURACAO'BN, N.W.I.	9009	9 13	23 57 54.39	17 12 42	-37 37				434023
10475	AREQUIPA'BN, PERU	9007	9 14	0 00 46.10	19 22 06	19 39				434013
10471	OLIFANTSFNTN'BN,S.AF	9002	9 14	0 51 18.10	3 10 42	-31 38				434023
10476	AREQUIPA'BN, PERU	9007	9 14	7 16 10.78	1 41 36	-52 30				434023
10477	AREQUIPA'BN, PERU	9007	9 14	9 43 08.14	4 11 42	-15 22				434013
10472	OLIFANTSFNTN'BN,S.AF	9002	9 14	19 39 56.60	19 39 36	-13 10				434013
10473	OLIFANTSFNTN'BN,S.AF	9002	9 15	0 36 16.90	2 40 00	-32 49				434023
10478	AREQUIPA'BN, PERU	9007	9 15	2 09 59.08	20 09 48	-37 28				434023
10474	OLIFANTSFNTN'BN,S.AF	9002	9 15	2 58 30.00	3 15 48	-1 41				434013
10482	VILLA OLORES'BN,ARG	9011	9 15	7 02 48.96	0 50 48	-26 27				434023
10483	VILLA OLORES'BN,ARG	9011	9 15	7 07 44.33	2 51 54	-17 35				434013
10481	WOOMERA'BN, AUSTR.	9003	9 15	12 59 29.15	19 25 42	-9 45				434013
10479	OLIFANTSFNTN'BN,S.AF	9002	9 15	17 08 44.60	20 33 12	15 39				434013
10494	CURACAO'BN, N.W.I.	9009	9 15	23 29 51.89	15 56 00	-36 00				434023
10497	VILLA OLORES'BN,ARG	9011	9 15	23 38 54.51	20 14 36	20 18				434013
10498	VILLA OLORES'BN,ARG	9011	9 15	23 41 52.72	21 18 48	8 46				434013
10480	OLIFANTSFNTN'BN,S.AF	9002	9 16	0 19 50.30	1 37 24	-35 51				434023
10499	VILLA OLORES'BN,ARG	9011	9 16	1 58 07.68	20 11 54	-11 25				434013
10487	WOOMERA'BN, AUSTR.	9003	9 16	10 30 06.83	20 42 12	8 36				434013
10488	WOOMERA'BN, AUSTR.	9003	9 16	12 47 22.67	19 52 06	-15 25				434013
10500	VILLA OLORES'BN,ARG	9011	9 17	1 46 31.70	20 59 12	-18 17				434013
10485	OLIFANTSFNTN'BN,S.AF	9002	9 17	2 29 54.20	2 45 18	-2 36				434013
10501	VILLA OLORES'BN,ARG	9011	9 17	8 53 50.51	1 09 12	-5 06				434013
10502	VILLA OLORES'BN,ARG	9011	9 17	9 00 14.03	2 47 42	9 46				434013
10495	CURACAO'BN, N.W.I.	9009	9 17	9 09 54.91	6 31 00	-33 41				434023
10489	WOOMERA'BN, AUSTR.	9003	9 17	10 16 23.27	20 32 54	8 52				434013
10522	OLIFANTSFNTN'BN,S.AF	9002	9 17	19 01 45.14	20 38 24	-26 39				434023
10490	WOOMERA'BN, AUSTR.	9003	9 17	19 50 22.49	2 46 56	13 37				434013
10503	VILLA OLORES'BN,ARG	9011	9 17	23 10 13.48	19 17 30	27 43				434013
10504	VILLA OLORES'BN,ARG	9011	9 17	23 15 50.55	21 33 00	4 00				434013
10484	OLIFANTSFNTN'BN,S.AF	9002	9 18	2 16 52.43	2 54 36	0 50				434013
10505	VILLA OLORES'BN,ARG	9011	9 18	6 23 21.72	1 49 18	-19 17				434013
10506	VILLA OLORES'BN,ARG	9011	9 18	6 31 17.40	4 05 30	-2 15				434013
10507	VILLA OLORES'BN,ARG	9011	9 18	8 36 30.47	0 18 18	-8 30				434013
10508	VILLA OLORES'BN,ARG	9011	9 18	8 46 01.34	2 35 48	9 32				434013
10496	CURACAO'BN, N.W.I.	9009	9 18	8 55 37.56	6 07 06	-33 37				434023
10491	WOOMERA'BN, AUSTR.	9003	9 18	10 01 33.04	19 52 12	14 26				434013
10493	WOOMERA'BN, AUSTR.	9003	9 18	17 15 00.40	2 19 18	-13 24				434013
10492	WOOMERA'BN, AUSTR.	9003	9 18	19 36 23.11	2 38 18	13 53				434013
10486	OLIFANTSFNTN'BN,S.AF	9002	9 19	2 02 50.70	2 46 18	1 31				434013
10513	VILLA OLORES'BN,ARG	9011	9 19	6 16 55.24	3 50 48	-2 18				434013
10514	VILLA OLORES'BN,ARG	9011	9 19	8 32 14.73	2 31 24	10 37				434013
10509	WOOMERA'BN, AUSTR.	9003	9 19	12 09 52.31	21 16 24	-27 44				434023
10515	MAUI'BN, HAWAII	9012	9 19	15 16 21.29	6 28 12	-29 22				434023
10512	WOOMERA'BN, AUSTR.	9003	9 19	17 00 06.18	1 57 12	-14 10				434013
10510	OLIFANTSFNTN'BN,S.AF	9002	9 19	18 33 12.80	19 46 36	-25 26				434023
10511	OLIFANTSFNTN'BN,S.AF	9002	9 20	1 47 54.00	2 23 00	-0 05				434013
10519	VILLA OLORES'BN,ARG	9011	9 20	6 05 10.17	4 13 18	3 18				434013
10520	VILLA OLORES'BN,ARG	9011	9 20	8 14 56.89	1 35 48	3 34				434013
10518	AREQUIPA'BN, PERU	9007	9 20	8 19 17.57	3 11 36	-8 45				434013
10521	VILLA OLORES'BN,ARG	9011	9 20	8 22 17.36	3 26 24	21 25				434013
10523	OLIFANTSFNTN'BN,S.AF	9002	9 20	18 20 04.00	19 57 48	-28 41				434023
30257	PRETORIA, S.AFR.	8575	9 20	18 20 11.2			200 36	86 06		845302
10526	VILLA OLORES'BN,ARG	9011	9 21	8 03 24.30	2 05 18	10 12				434013
10524	WOOMERA'BN, AUSTR.	9003	9 21	11 42 08.15	21 00 24	-28 48				434023
10527	OLIFANTSFNTN'BN,S.AF	9002	9 21	18 06 25.80	19 51 06	-30 03				434023
10525	WOOMERA'BN, AUSTR.	9003	9 21	18 53 53.25	2 09 06	15 23				434013
10528	VILLA OLORES'BN,ARG	9011	9 22	0 32 49.57	17 41 12	-2 15				434013
10529	VILLA OLORES'BN,ARG	9011	9 22	0 37 57.57	20 34 18	-21 52				434013
10530	WOOMERA'BN, AUSTR.	9003	9 22	11 27 56.70	20 38 30	-28 35				434023
10531	WOOMERA'BN, AUSTR.	9003	9 22	18 37 04.20	1 24 24	8 41				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10537	AREQUIPA'BN, PERU	9007	9 23	0 18 55.40	17 28 30	-45 15				434023
10532	CURACAO'BN, N.W.I.	9009	9 23	7 45 30.80	4 57 36	-26 42				434023
10543	MAUI'BN, HAWAII	9012	9 23	14 21 39.22	5 51 36	-20 10				434013
10536	NAINI TAL'BN, INOIA	9006	9 23	23 04 23.65	6 19 24	-20 39				434013
10541	SHIRAZ'BN, IRAN	9008	9 24	1 15 37.38	6 18 06	-18 06				434013
10538	AREQUIPA'BN, PERU	9007	9 24	2 28 44.77	21 07 54	-63 55				434023
10539	AREQUIPA'BN, PERU	9007	9 24	9 43 12.70	2 11 18	22 48				434013
10534	WOOMERA'BN, AUSTR.	9003	9 24	13 18 08.84	20 15 12	-34 06				434023
10533	OLIFANTSFNTN'BN,S.AF	9002	9 24	17 24 42.70	16 42 48	-30 32				434023
30258	PRETORIA, S.AFR.	8575	9 24	17 25 20.6			198 36	81 18		845302
10540	AREQUIPA'BN, PERU	9007	9 24	23 51 56.25	16 59 00	-49 47				434023
10542	SHIRAZ'BN, IRAN	9008	9 25	1 02 24.00	6 19 54	-14 41				434013
10544	MAUI'BN, HAWAII	9012	9 25	13 53 51.00	5 31 18	-16 24				434013
10545	OLIFANTSFNTN'BN,S.AF	9002	9 25	19 33 14.30	21 39 36	-49 37				434023
10550	AREQUIPA'BN, PERU	9007	9 26	2 02 08.30	22 00 00	-66 35				434023
10554	VILLA OLORES'BN,ARG	9011	9 26	2 03 44.91	21 48 36	-35 31				434023
10535	SAN FERNANDO'BN, SP.	9004	9 26	5 12 11.20	6 53 36	-12 04				434013
10551	AREQUIPA'BN, PERU	9007	9 26	6 57 50.51	3 13 36	7 55				434013
10552	CURACAO'BN, N.W.I.	9009	9 26	7 04 14.80	4 40 54	-19 25				434013
30255	DENVER, COLO.	8582	9 26	11 42 45.2			147 24	29 42		845303
10547	WOOMERA'BN, AUSTR.	9003	9 26	12 53 07.78	21 33 42	-36 20				434023
10546	OLIFANTSFNTN'BN,S.AF	9002	9 26	16 57 39.90	18 23 54	-33 58				434023
10548	WOOMERA'BN, AUSTR.	9003	9 26	17 47 03.94	2 20 06	26 21				434013
10549	NAINI TAL'BN, INOIA	9006	9 26	22 23 27.63	6 01 18	-13 38				434013
10553	SHIRAZ'BN, IRAN	9008	9 27	0 35 19.63	6 00 36	-10 46				434013
10557	VILLA OLORES'BN,ARG	9011	9 27	1 44 25.30	18 17 18	-26 55				434023
10555	AREQUIPA'BN, PERU	9007	9 27	1 47 56.99	21 37 00	-66 51				434023
10558	VILLA OLORES'BN,ARG	9011	9 27	1 50 43.01	22 14 00	-34 47				434023
11050	CURACAO'BN, N.W.I.	9009	9 27	6 47 25.94	3 50 54	-24 58				434023
10556	CURACAO'BN, N.W.I.	9009	9 27	9 12 27.03	4 35 48	19 59				434013
10560	WOOMERA'BN, AUSTR.	9003	9 27	10 19 39.68	20 13 30	-32 19				434023
10561	WOOMERA'BN, AUSTR.	9003	9 27	12 39 55.41	21 52 06	-35 53				434023
10559	OLIFANTSFNTN'BN,S.AF	9002	9 27	19 03 38.00	19 45 30	-49 58				434023
30259	PRETORIA, S.AFR.	8575	9 27	19 05 30.1			178 36	64 42		845303
10564	SHIRAZ'BN, IRAN	9008	9 28	0 22 30.02	6 24 54	- 4 56				434013
10562	SAN FERNANDO'BN, SP.	9004	9 28	4 42 57.30	6 00 36	-11 40				434013
10565	CURACAO'BN, N.W.I.	9009	9 28	8 58 15.94	4 22 48	20 31				434013
10563	WOOMERA'BN, AUSTR.	9003	9 28	10 05 39.55	19 45 06	-32 13				434023
10569	MAUI'BN, HAWAII	9012	9 28	13 11 01.17	4 49 06	-13 19				434013
10570	TOKYO'BN, JAPAN	9005	9 28	17 34 28.40	5 27 12	-19 39				434013
10578	VILLA OLORES'BN,ARG	9011	9 29	1 21 12.55	20 44 24	-35 31				434023
10566	SAN FERNANDO'BN, SP.	9004	9 29	4 30 06.90	6 12 54	- 7 48				434013
10567	CURACAO'BN, N.W.I.	9009	9 29	6 22 18.51	4 19 18	-13 38				434013
10571	JUPITER'BN, FLA.	9010	9 29	8 43 55.36	5 23 48	- 6 12				434013
10568	CURACAO'BN, N.W.I.	9009	9 29	8 44 20.15	4 17 12	22 06				434013
10573	WOOMERA'BN, AUSTR.	9003	9 29	9 52 01.17	19 34 24	-32 51				434023
10574	WOOMERA'BN, AUSTR.	9003	9 29	12 11 37.25	21 13 24	-35 56				434023
10575	TOKYO'BN, JAPAN	9005	9 29	17 22 46.70	5 52 48	-13 45				434013
10572	OLIFANTSFNTN'BN,S.AF	9002	9 29	18 37 18.20	20 33 54	-52 46				434023
10576	NAINI TAL'BN, INOIA	9006	9 29	21 39 31.94	4 59 12	-13 02				434013
10577	SHIRAZ'BN, IRAN	9008	9 29	23 52 14.45	5 21 12	- 6 55				434013
10581	VILLA OLORES'BN,ARG	9011	9 30	1 08 23.52	21 20 54	-35 02				434023
10580	JUPITER'BN, FLA.	9010	9 30	8 26 58.49	4 23 18	-11 28				434013
10591	CURACAO'BN, N.W.I.	9009	9 30	8 27 59.93	3 25 54	15 54				434013
10579	ORGAN PASS'BN, N.M.	9001	9 30	10 42 37.10	5 30 00	- 5 32				434013
10590	MAUI'BN, HAWAII	9012	9 30	15 05 58.04	5 17 06	27 36				434013
10583	TOKYO'BN, JAPAN	9005	9 30	17 06 54.00	5 16 18	-15 50				434013
10582	OLIFANTSFNTN'BN,S.AF	9002	9 30	18 23 09.30	19 56 42	-53 37				434023
10584	NAINI TAL'BN, INOIA	9006	9 30	21 26 45.16	5 11 42	- 8 42				434013
10586	JUPITER'BN, FLA.	9010	10 01	8 14 41.84	4 45 54	- 5 37				434013
10585	SHIRAZ'BN, IRAN	9008	10 01	23 24 30.00	5 17 24	- 2 00				434013
11051	TOKYO'BN, JAPAN	9005	10 02	5 59 07.97	5 32 54	5 24				434013
10587	JUPITER'BN, FLA.	9010	10 02	10 13 42.97	2 33 00	3 11				434013
10588	JUPITER'BN, FLA.	9010	10 02	10 19 03.60	3 54 12	16 22				434013
10589	JUPITER'BN, FLA.	9010	10 02	10 23 39.92	5 47 48	29 20				434013
11052	TOKYO'BN, JAPAN	9005	10 02	18 59 08.00	5 32 54	5 24				434013
10592	SHIRAZ'BN, IRAN	9008	10 02	23 08 22.19	4 27 48	- 5 45				434013
11053	JUPITER'BN, FLA.	9010	10 03	7 43 42.47	3 45 18	- 8 54				434013
30256	N. CANTON, OHIO	8559	10 03	10 09 42.1	5 49 45	3 10				845033
10593	MAUI'BN, HAWAII	9012	10 03	14 22 56.10	4 32 12	28 05				434013
10595	SHIRAZ'BN, IRAN	9008	10 04	1 17 24.66	5 29 30	25 40				434013
10594	OLIFANTSFNTN'BN,S.AF	9002	10 04	17 29 06.56	20 02 48	-57 38				434023
10596	ORGAN PASS'BN, N.M.	9001	10 05	9 30 33.10	4 22 06	- 1 05				434013
10597	ORGAN PASS'BN, N.M.	9001	10 05	11 53 35.30	5 39 48	24 55				434013
10914	SHIRAZ'BN, IRAN	9008	10 05	22 27 43.87	4 35 18	2 22				434013
10598	SAN FERNANDO'BN, SP.	9004	10 06	2 51 32.50	4 52 00	0 20				434013
10599	SAN FERNANDO'BN, SP.	9004	10 06	5 12 31.90	6 09 36	19 53				434013
10601	CURACAO'BN, N.W.I.	9009	10 06	9 29 16.31	4 11 30	57 37				434013
10600	WOOMERA'BN, AUSTR.	9003	10 06	10 35 39.58	20 15 24	-33 23				434023
30260	WOOMERA, AUSTR.	0603	10 06	10 36 00.5			347	89		845302



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10603	MAUI'BN, HAWAII	9012	10 06	13 40 25.89	4 10 48	30 54				434013
10608	SHIRAZ'BN, IRAN	9008	10 07	0 34 33.43	4 54 12	27 09				434013
10605	AREQUIPA'BN, PERU	9007	10 07	1 49 22.70	20 55 00	-52 49				434023
10604	SAN FERNANDO'BN, SP.	9004	10 07	4 57 56.60	5 48 42	20 12				434013
10602	CURACAO'BN, N.W.I.	9009	10 07	9 16 28.48	4 51 30	60 37				434013
10607	WOOMERA'BN, AUSTR.	9003	10 07	12 40 05.08	20 45 24	-4 33				434013
10609	SHIRAZ'BN, IRAN	9008	10 08	0 20 41.31	4 31 30	26 40				434013
30261	WOOMERA, AUSTR.	0603	10 08	10 08 45.7			352 30	89 36		845302
10610	VILLA OLORES'BN, ARG	9011	10 09	1 21 49.30	19 40 00	-6 23				434013
10611	VILLA OLORES'BN, ARG	9011	10 09	1 25 22.51	21 54 24	3 32				434013
10606	OLIFANTSFNTN'BN, S.AF	9002	10 09	18 40 06.70	20 49 36	-21 13				434013
10615	SAN FERNANDO'BN, SP.	9004	10 10	4 25 47.10	5 32 18	23 11				434013
10614	JUPITER'BN, FLA.	9010	10 10	8 32 44.07	5 46 54	36 32				434013
10613	CURACAO'BN, N.W.I.	9009	10 10	8 33 18.47	4 19 36	59 20				434013
10612	ORGAN PASS'BN, N.M.	9001	10 10	10 42 43.40	5 04 48	28 19				434013
10619	VILLA OLORES'BN, ARG	9011	10 11	0 54 41.25	21 21 48	-1 45				434013
10620	VILLA OLORES'BN, ARG	9011	10 11	0 58 47.82	22 04 48	10 52				434013
10616	WOOMERA'BN, AUSTR.	9003	10 11	11 46 44.23	20 56 30	9 01				434013
10627	MAUI'BN, HAWAII	9012	10 11	12 29 32.17	3 49 42	36 07				434013
10646	SHIRAZ'BN, IRAN	9008	10 11	23 22 29.49	4 03 54	29 27				434013
10618	NAINI TAL'BN, INOIA	9006	10 11	23 32 29.50	4 47 24	38 31				434013
10621	AREQUIPA'BN, PERU	9007	10 12	0 43 01.97	22 00 54	-44 30				434023
10617	SAN FERNANDO'BN, SP.	9004	10 12	3 44 25.90	4 19 48	21 05				434013
10624	JUPITER'BN, FLA.	9010	10 12	7 59 04.93	5 47 42	31 50				434013
10625	JUPITER'BN, FLA.	9010	10 12	10 28 41.57	8 55 24	37 29				434013
10622	WOOMERA'BN, AUSTR.	9003	10 12	11 32 30.61	20 24 06	9 42				434013
10654	MAUI'BN, HAWAII	9012	10 12	12 17 54.23	4 45 48	39 58				434013
10626	SHIRAZ'BN, IRAN	9008	10 12	23 07 32.98	3 44 12	29 13				434013
10628	AREQUIPA'BN, PERU	9007	10 13	0 32 03.55	23 45 42	-22 55				434013
10632	JUPITER'BN, FLA.	9010	10 13	7 45 06.63	3 34 48	32 44				434013
10623	CURACAO'BN, N.W.I.	9009	10 13	7 49 30.47	3 40 36	58 15				434013
10633	JUPITER'BN, FLA.	9010	10 13	10 10 23.21	6 00 42	44 01				434013
10629	WOOMERA'BN, AUSTR.	9003	10 13	11 19 05.90	20 21 54	13 07				434013
10653	MAUI'BN, HAWAII	9012	10 13	14 21 06.35	3 24 48	48 32				434013
10641	TOKYO'BN, JAPAN	9005	10 13	16 24 12.90	4 40 48	18 28				434013
10634	OLIFANTSFNTN'BN, S.AF	9002	10 13	17 45 25.20	19 52 36	-14 09				434013
10642	TOKYO'BN, JAPAN	9005	10 13	18 44 57.90	5 28 06	27 59				434013
10630	NAINI TAL'BN, INOIA	9006	10 13	20 44 42.60	4 44 00	38 59				434013
10635	SHIRAZ'BN, IRAN	9008	10 13	22 57 36.22	5 20 12	33 59				434013
10656	SAN FERNANDO'BN, SP.	9004	10 14	3 16 40.00	4 26 36	23 10				434013
10631	CURACAO'BN, N.W.I.	9009	10 14	7 31 21.11	2 04 12	53 20				434013
30262	N. CANTON, OHIO	8559	10 14	9 56 11.6	5 59 20	18 42				845033
10636	WOOMERA'BN, AUSTR.	9003	10 14	11 05 17.25	20 02 18	15 03				434013
10648	SHIRAZ'BN, IRAN	9008	10 14	22 38 00.65	3 36 30	30 48				434013
10644	NAINI TAL'BN, INOIA	9006	10 14	22 50 26.97	4 52 48	39 12				434013
10652	VILLA OLORES'BN, ARG	9011	10 15	0 02 39.62	20 24 48	16 47				434013
10649	SHIRAZ'BN, IRAN	9008	10 15	1 04 39.41	6 13 00	38 01				434013
10637	SAN FERNANDO'BN, SP.	9004	10 15	5 27 03.50	6 44 48	22 01				434013
10651	JUPITER'BN, FLA.	9010	10 15	7 22 57.24	5 56 30	37 28				434013
10643	TOKYO'BN, JAPAN	9005	10 15	18 14 10.90	4 26 30	27 36				434013
10650	SHIRAZ'BN, IRAN	9008	10 16	0 50 10.31	6 01 36	37 45				434013
10638	SAN FERNANDO'BN, SP.	9004	10 16	2 47 51.10	4 12 42	23 57				434013
10655	MAUI'BN, HAWAII	9012	10 16	13 41 13.32	4 40 18	52 35				434013
10657	SHIRAZ'BN, IRAN	9008	10 16	22 13 37.31	4 42 48	34 25				434013
10645	NAINI TAL'BN, INOIA	9006	10 16	22 17 20.82	2 58 00	35 14				434013
10639	SAN FERNANDO'BN, SP.	9004	10 17	2 33 23.50	4 05 30	24 15				434013
10640	SAN FERNANDO'BN, SP.	9004	10 17	4 56 49.20	5 51 06	23 20				434013
10658	JUPITER'BN, FLA.	9010	10 17	9 14 14.01	6 06 30	41 36				434013
30263	ROCHESTER, N.Y.	8564	10 17	9 14 29.0	5 54 30	13 47				845034
10659	WOOMERA'BN, AUSTR.	9003	10 17	10 23 55.09	18 55 24	20 11				434013
10667	SHIRAZ'BN, IRAN	9008	10 17	22 00 27.42	5 05 04	34 39				434013
10660	NAINI TAL'BN, INOIA	9006	10 17	22 12 19.96	6 44 36	35 43				434013
10668	SHIRAZ'BN, IRAN	9008	10 18	0 20 44.77	5 31 24	37 21				434013
30264	CINCINNATI, OHIO	8555	10 18	8 55 58.2	4 59 18	22 00				845005
10661	ORGAN PASS'BN, N.M.	9001	10 18	11 10 44.70	5 51 54	30 26				434013
10662	TOKYO'BN, JAPAN	9005	10 18	17 33 28.30	5 05 24	28 03				434013
30269	MITAKA, JAPAN	0229	10 18	19 56 05.1			198 48	66 18		845305
10663	TOKYO'BN, JAPAN	9005	10 18	19 56 05.60	6 29 00	15 02				434013
10666	AREQUIPA'BN, PERU	9007	10 19	1 26 26.77	20 30 30	26 24				434013
10664	CURACAO'BN, N.W.I.	9009	10 19	6 27 04.05	5 16 06	59 55				434013
10665	ORGAN PASS'BN, N.M.	9001	10 19	10 56 32.50	5 42 06	30 08				434013
10670	NAINI TAL'BN, INOIA	9006	10 19	21 40 37.03	5 20 48	37 57				434013
10677	SHIRAZ'BN, IRAN	9008	10 19	23 53 06.15	5 47 48	35 34				434013
10673	AREQUIPA'BN, PERU	9007	10 20	1 14 23.69	21 21 30	36 29				434013
10669	SAN FERNANDO'BN, SP.	9004	10 20	4 11 57.00	4 54 06	23 47				434013
10671	CURACAO'BN, N.W.I.	9009	10 20	6 13 19.65	5 31 48	59 08				434013
10674	JUPITER'BN, FLA.	9010	10 20	8 35 02.36	7 39 30	31 29				434013
10672	ORGAN PASS'BN, N.M.	9001	10 20	10 40 26.70	4 56 54	31 01				434013
10675	TOKYO'BN, JAPAN	9005	10 20	17 01 24.70	3 41 54	27 58				434013
10682	SHIRAZ'BN, IRAN	9008	10 20	23 37 07.59	5 04 18	36 29				434013
10676	NAINI TAL'BN, INOIA	9006	10 20	23 49 19.08	6 33 00	19 40				434013

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10681	AREQUIPA'BN, PERU	9007	10 21	0 58 51.47	19 51 42	30 19				434013
10679	JUPITER'BN, FLA.	9010	10 21	8 14 39.16	4 54 18	41 19				434013
10678	CURACAO'BN, N.W.I.	9009	10 21	8 21 54.57	6 04 12	56 46				434013
10680	ORGAN PASS'BN, N.M.	9001	10 21	10 27 01.10	5 14 12	29 55				434013
10683	TOKYO'BN, JAPAN	9005	10 21	16 49 30.10	4 33 00	27 48				434013
30270	MITAKA, JAPAN	0229	10 21	19 12 24.5			179 36	68 00		845303
10684	TOKYO'BN, JAPAN	9005	10 21	19 12 33.40	5 58 06	14 24				434013
10688	SHIRAZ'BN, IRAN	9008	10 21	23 23 11.13	5 11 06	35 40				434013
10685	MAINI TAL'BN, INDIA	9006	10 21	23 35 30.13	6 37 06	17 45				434013
10690	CURACAO'BN, N.W.I.	9009	10 22	0 48 52.53	21 36 48	-30 49				434023
30265	CINCINNATI, OHIO	8555	10 22	10 20 41	5 53 12	7 18				845003
10686	MAINI TAL'BN, INDIA	9006	10 22	20 55 05.71	4 10 30	38 23				434013
10687	AREQUIPA'BN, PERU	9007	10 23	0 31 16.75	19 06 48	33 21				434013
10691	CURACAO'BN, N.W.I.	9009	10 23	0 37 11.86	22 52 12	-16 04				434013
10689	SHIRAZ'BN, IRAN	9008	10 23	1 32 40.74	6 30 54	11 50				434013
10692	JUPITER'BN, FLA.	9010	10 23	7 44 41.11	4 24 06	41 42				434013
10693	ORGAN PASS'BN, N.M.	9001	10 23	9 57 28.42	4 47 54	29 31				434013
10694	ORGAN PASS'BN, N.M.	9001	10 23	12 19 04.45	5 32 00	9 53				434013
10695	SHIRAZ'BN, IRAN	9008	10 23	22 52 58.78	4 28 48	35 55				434013
10700	AREQUIPA'BN, PERU	9007	10 24	0 17 43.12	18 52 12	35 59				434013
10696	JUPITER'BN, FLA.	9010	10 24	7 31 03.26	4 33 12	40 29				434013
30266	CINCINNATI, OHIO	8555	10 24	9 51 24.5	5 31 00	6 37				845043
10697	JUPITER'BN, FLA.	9010	10 24	9 55 28.14	6 06 30	18 00				434013
10702	SHIRAZ'BN, IRAN	9008	10 24	22 39 17.11	4 41 36	34 48				434013
10698	MAINI TAL'BN, INDIA	9006	10 24	22 52 46.06	6 25 18	13 45				434013
10699	CURACAO'BN, N.W.I.	9009	10 25	0 09 51.02	22 39 06	-13 39				434013
10703	SHIRAZ'BN, IRAN	9008	10 25	1 03 38.14	6 11 18	10 46				434013
10701	ORGAN PASS'BN, N.M.	9001	10 25	9 28 12.80	4 28 36	28 52				434013
10704	JUPITER'BN, FLA.	9010	10 25	9 42 43.92	6 31 42	13 18				434013
10707	MAINI TAL'BN, INDIA	9006	10 25	20 19 25.51	6 13 18	27 33				434013
10708	CURACAO'BN, N.W.I.	9009	10 25	23 55 54.95	22 18 12	-15 03				434013
10712	SHIRAZ'BN, IRAN	9008	10 26	0 48 45.39	5 55 30	10 50				434013
10705	SAN FERNANDO'BN, SP.	9004	10 26	2 48 31.50	5 22 48	17 14				434013
10706	SAN FERNANDO'BN, SP.	9004	10 26	5 09 30.60	5 50 54	- 2 11				434013
10709	CURACAO'BN, N.W.I.	9009	10 26	7 07 27.44	5 05 24	55 00				434013
10710	ORGAN PASS'BN, N.M.	9001	10 26	9 15 30.90	5 01 06	26 07				434013
10711	ORGAN PASS'BN, N.M.	9001	10 26	11 37 43.60	5 46 12	3 59				434013
10715	SHIRAZ'BN, IRAN	9008	10 26	22 14 32.11	5 57 48	26 56				434013
10713	MAINI TAL'BN, INDIA	9006	10 26	22 17 02.66	3 57 36	23 30				434013
10714	CURACAO'BN, N.W.I.	9009	10 27	6 54 16.33	5 33 54	52 31				434013
10717	JUPITER'BN, FLA.	9010	10 27	9 02 24.54	5 33 48	16 18				434013
30267	WICHITA, KAN.	0028	10 27	9 03 41.6	4 56 10	13 22				845043
30268	WICHITA, KAN.	0028	10 27	9 03 46.4	4 57 19	13 17				845043
10718	ORGAN PASS'BN, N.M.	9001	10 27	9 05 04.01	6 09 12	18 05				434013
10716	JUPITER'BN, FLA.	9010	10 27	9 11 32.40	2 41 30	26 51				434013
10719	ORGAN PASS'BN, N.M.	9001	10 27	11 22 20.90	5 23 06	4 59				434013
10722	MAUI'BN, HAWAII	9012	10 27	13 26 47.01	5 26 00	35 02				434013
10720	MAINI TAL'BN, INDIA	9006	10 27	22 10 36.00	6 21 54	8 50				434013
10724	CURACAO'BN, N.W.I.	9009	10 27	23 29 03.01	22 25 24	- 8 10				434013
10721	SHIRAZ'BN, IRAN	9008	10 28	0 19 23.47	5 33 06	9 52				434013
10726	CURACAO'BN, N.W.I.	9009	10 28	6 41 07.16	5 58 54	49 15				434013
10725	CURACAO'BN, N.W.I.	9009	10 28	9 05 39.05	6 45 06	20 13				434013
10723	AREQUIPA'BN, PERU	9007	10 28	9 16 19.48	9 57 00	29 48				434013
10738	MAUI'BN, HAWAII	9012	10 28	13 15 24.56	6 22 18	27 16				434013
10741	SHIRAZ'BN, IRAN	9008	10 29	0 02 20.58	4 39 48	13 42				434013
10728	SAN FERNANDO'BN, SP.	9004	10 29	4 23 11.50	4 42 24	0 46				434013
10739	MAUI'BN, HAWAII	9012	10 29	5 48 26.60	22 49 18	- 3 37				434013
10733	CURACAO'BN, N.W.I.	9009	10 29	6 27 27.24	6 09 48	46 41				434013
10737	JUPITER'BN, FLA.	9010	10 29	8 42 31.92	5 18 24	14 19				434013
10727	ORGAN PASS'BN, N.M.	9001	10 29	10 53 41.60	5 13 12	2 33				434013
10740	MAUI'BN, HAWAII	9012	10 29	12 57 56.34	5 15 36	33 00				434013
10729	MAINI TAL'BN, INDIA	9006	10 29	21 57 43.80	4 57 06	14 47				434013
10734	CURACAO'BN, N.W.I.	9009	10 30	1 17 57.66	20 11 30	38 30				434013
10748	MAUI'BN, HAWAII	9012	10 30	5 34 08.60	22 07 42	- 8 13				434013
10735	CURACAO'BN, N.W.I.	9009	10 30	8 36 42.58	6 28 24	17 35				434013
10730	MAINI TAL'BN, INDIA	9006	10 30	21 24 26.97	5 12 00	11 17				434013
10732	SHIRAZ'BN, IRAN	9008	10 30	23 35 09.68	4 56 36	8 18				434013
10731	MAINI TAL'BN, INDIA	9006	10 30	23 43 46.38	5 00 42	- 8 41				434013
10749	MAUI'BN, HAWAII	9012	10 31	5 20 55.48	22 25 54	- 3 10				434013
10744	AREQUIPA'BN, PERU	9007	10 31	8 20 03.73	5 58 48	51 46				434013
10736	CURACAO'BN, N.W.I.	9009	10 31	8 22 04.94	6 17 36	16 41				434013
10750	MAUI'BN, HAWAII	9012	10 31	12 37 02.75	7 18 00	11 08				434013
10743	TOKYO'BN, JAPAN	9005	10 31	16 50 42.60	5 31 48	1 20				434013
10745	MAINI TAL'BN, INDIA	9006	10 31	21 10 42.51	5 17 48	8 39				434013
10753	SHIRAZ'BN, IRAN	9008	10 31	23 20 32.73	4 46 42	7 27				434013
10746	MAINI TAL'BN, INDIA	9006	10 31	23 33 18.72	5 45 48	-18 25				434013
10747	CURACAO'BN, N.W.I.	9009	11 01	0 52 32.55	20 21 54	56 35				434013
10755	MAUI'BN, HAWAII	9012	11 01	5 06 40.85	21 48 00	- 8 22				434013
10756	MAUI'BN, HAWAII	9012	11 01	12 19 08.93	6 20 18	18 28				434013
10751	MAINI TAL'BN, INDIA	9006	11 01	20 58 23.20	5 41 36	2 49				434013
10752	MAINI TAL'BN, INDIA	9006	11 01	23 16 47.02	5 10 18	-14 52				434013
10757	ORGAN PASS'BN, N.M.	9001	11 02	2 49 36.20	23 05 36	- 1 18				434013

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10762	MAUI'BN, HAWAII	9012	11 02	4 53 19.83	21 48 00	- 4 18				434013
10754	CURACAO'BN, N.W.I.	9009	11 02	7 53 27.76	6 07 54	12 56				434013
10758	ORGAN PASS'BN, N.M.	9001	11 02	12 17 53.60	5 17 24	-23 09				434023
10763	MAUI'BN, HAWAII	9012	11 02	14 24 07.88	5 30 42	- 6 27				434013
10759	SHIRAZ'BN, IRAN	9008	11 02	15 45 15.90	22 38 12	- 2 47				434013
10760	CURACAO'BN, N.W.I.	9009	11 03	0 25 49.00	20 39 06	65 58				434013
10767	MAUI'BN, HAWAII	9012	11 03	4 39 57.09	21 58 00	- 0 18				434013
10761	CURACAO'BN, N.W.I.	9009	11 03	7 38 19.01	5 49 12	13 16				434013
10764	NAINI TAL'BN, INOIA	9006	11 03	13 20 29.38	22 53 12	-17 58				434013
10765	JUPITER'BN, FLA.	9010	11 04	0 08 02.46	19 47 12	-13 58				434013
50012	AIKEN, S.C.	6023	11 04	0 09 11.1	21 35 18	-25 16				634042
10766	JUPITER'BN, FLA.	9010	11 04	0 11 24.77	23 34 54	11 50				434013
10770	SHIRAZ'BN, IRAN	9008	11 04	15 18 25.21	22 13 48	- 3 44				434013
50013	AIKEN, S.C.	6023	11 04	23 55 32.5	21 25 15	-26 02				634042
10769	NAINI TAL'BN, INDIA	9006	11 05	22 18 03.67	4 26 30	-17 36				434013
10771	JUPITER'BN, FLA.	9010	11 05	23 42 30.57	21 25 24	0 15				434013
10772	JUPITER'BN, FLA.	9010	11 05	23 43 51.55	23 15 18	12 21				434013
10768	TOKYO'BN, JAPAN	9005	11 06	10 36 40.60	7 59 30	5 20	205 18	57 48		434013
30283	MITAKA, JAPAN	0229	11 06	10 36 41.1						845303
10773	MAUI'BN, HAWAII	9012	11 06	13 25 55.33	4 54 12	-11 10				434013
10776	NAINI TAL'BN, INDIA	9006	11 06	22 04 40.97	4 32 12	-21 00				434013
10778	JUPITER'BN, FLA.	9010	11 06	23 28 15.74	20 18 54	- 5 47				434013
50014	AIKEN, S.C.	6023	11 06	23 28 19.4	21 06 09	-27 17				634042
10779	JUPITER'BN, FLA.	9010	11 06	23 29 16.19	21 51 18	5 47				434013
10780	JUPITER'BN, FLA.	9010	11 06	23 31 28.24	0 34 06	19 15				434013
10775	CURACAO'BN, N.W.I.	9009	11 07	6 43 10.45	6 29 48	- 1 13				434013
10774	CURACAO'BN, N.W.I.	9009	11 07	9 02 31.87	5 12 12	-23 23				434023
11054	MAUI'BN, HAWAII	9012	11 07	13 11 46.72	4 51 00	-13 25				434013
10777	CURACAO'BN, N.W.I.	9009	11 08	6 30 01.40	6 27 18	- 7 04				434013
30284	MITAKA, JAPAN	0229	11 08	10 10 16.2			168 12	64 06		845303
10781	TOKYO'BN, JAPAN	9005	11 08	10 10 24.40	23 04 06	10 09				434013
10786	MAUI'BN, HAWAII	9012	11 08	12 59 24.55	5 15 48	-20 15				434013
10782	NAINI TAL'BN, INOIA	9006	11 08	14 28 22.35	19 31 30	27 20				434013
10785	SAN FERNANDO'BN, SP.	9004	11 08	18 45 13.20	22 10 48	-14 07				434013
10783	NAINI TAL'BN, INOIA	9006	11 08	21 40 49.94	5 26 06	-32 51				434023
30271	PUEBLA, MEX.	0900	11 09	1 15 17.0	22 00 00	74 21				845043
10784	CURACAO'BN, N.W.I.	9009	11 09	8 34 26.68	5 08 12	-28 12				434023
10788	SHIRAZ'BN, IRAN	9008	11 09	16 26 35.51	20 34 42	38 37				434013
10787	ORGAN PASS'BN, N.M.	9001	11 10	0 59 52.30	21 51 36	- 4 43				434013
30272	CHINA LAKE, CAL.	8588	11 10	3 14 53.6			171 27 36	68 40 48		845303
10801	JUPITER'BN, FLA.	9010	11 10	8 15 07.07	5 02 48	-34 05				434023
10795	AREQUIPA'BN, PERU	9007	11 10	8 25 07.00	6 33 48	- 1 24				434013
30295	HIGASHIMATSUYAMA, JAP	0210	11 10	9 42 39.7	22 33 48	6 42				845003
30294	MITAKA, JAPAN	0229	11 10	9 42 44.5			169 06	62 36		845303
10793	TOKYO'BN, JAPAN	9005	11 10	9 42 49.00	22 40 24	8 29				434013
10794	NAINI TAL'BN, INOIA	9006	11 10	14 02 21.93	20 54 18	42 33				434013
10797	SHIRAZ'BN, IRAN	9008	11 10	16 13 27.88	21 15 00	44 23				434013
10789	ORGAN PASS'BN, N.M.	9001	11 11	0 46 17.60	21 49 48	- 4 19				434013
30273	PUEBLA, MEX.	0900	11 11	0 47 57.6	21 52 36	79 11				845043
30274	PUEBLA, MEX.	0900	11 11	0 51 49.2	3 27 30	49 03				845043
50016	AIKEN, S.C.	6023	11 11	0 52 08.8	22 45 49	26 36				634042
30275	SAN JOSE, CAL.	8573	11 11	2 59 46.7	22 15 36	- 0 42				845044
30276	CHINA LAKE, CAL.	8588	11 11	3 01 07.4			172 11 24	67 50 36		845303
10802	VILLA ODOLORES'BN, ARG	9011	11 11	8 03 21.31	4 07 30	23 28				434013
10804	CURACAO'BN, N.W.I.	9009	11 11	8 04 15.96	5 34 54	-26 59				434023
10798	SHIRAZ'BN, IRAN	9008	11 11	16 00 04.92	21 48 24	48 07				434013
30277	ST. PETERSBURG, FLA.	0121	11 12	0 37 11	20 07	53 00				845042
30279	ROCHESTER, N.Y.	8564	11 12	0 39 23.6	22 49 00	-10 19				845033
50015	ROCHESTER, N.Y.	5050	11 12	0 39 31.0	22 58 00	- 9 54				845033
30280	CHINA LAKE, CAL.	8588	11 12	2 47 22.6			172 26 24	66 24 12		845303
30281	CINCINNATI, OHIO	0050	11 12	2 48 58.6	19 33 18	0 55				845004
10792	WOOMERA'BN, AUSTR.	9003	11 12	16 31 19.18	7 12 54	19 22				434013
10791	WOOMERA'BN, AUSTR.	9003	11 12	18 55 12.66	8 10 48	- 7 50				434013
50017	AIKEN, S.C.	6023	11 13	0 24 38.8	22 26 06	26 46				634042
10790	ORGAN PASS'BN, N.M.	9001	11 13	2 36 06.25	22 38 00	36 00				434013
10799	CURACAO'BN, N.W.I.	9009	11 13	7 36 36.73	4 34 54	-27 59				434023
10796	AREQUIPA'BN, PERU	9007	11 13	7 40 27.90	5 54 24	- 2 55				434013
10826	SHIRAZ'BN, IRAN	9008	11 13	15 33 05.31	22 26 36	52 13				434013
10816	WOOMERA'BN, AUSTR.	9003	11 13	18 40 25.47	7 59 42	- 8 35				434013
0803	ORGAN PASS'BN, N.M.	9001	11 14	2 22 17.80	22 17 30	36 10				434013
0800	CURACAO'BN, N.W.I.	9009	11 14	7 21 54.73	4 37 36	-34 05				434023
0805	VILLA ODOLORES'BN, ARG	9011	11 14	7 24 24.42	4 58 24	18 39				434013
0806	VILLA ODOLORES'BN, ARG	9011	11 14	7 41 24.24	9 23 48	-12 39				434013
0809	SHIRAZ'BN, IRAN	9008	11 14	15 19 13.57	21 38 54	53 42				434013
0807	SAN FERNANDO'BN, SP.	9004	11 14	19 40 10.90	22 33 24	11 59				434013
00018	AIKEN, S.C.	6023	11 14	23 57 11.2	22 06 00	26 53				634042
0808	OLIFANTSFNTN'BN, S.AF	9002	11 15	0 48 55.80	7 16 06	- 5 42				434013
10282	CHINA LAKE, CAL.	8588	11 15	2 06 11.5			173 43 12	64 26 24		845303
0812	TOKYO'BN, JAPAN	9005	11 15	8 34 04.30	21 33 36	3 51				434013
0810	WOOMERA'BN, AUSTR.	9003	11 15	15 47 00.78	6 39 00	19 00				434013
0817	WOOMERA'BN, AUSTR.	9003	11 15	17 55 43.60	7 23 18	-10 04				434013
10811	WOOMERA'BN, AUSTR.	9003	11 15	18 09 41.06	7 18 42	- 7 46				434013

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10813	SAN FERNANDO*BN, SP.	9004	11 15	19 26 41.40	22 50 06	10 40				434013
50019	AIKEN, S.C.	6023	11 15	23 43 28.2	21 56 12	26 53				634042
30278	ALBUQUERQUE, N.M.	8579	11 16	1 55 01.1			180 00	73 24		845303
10815	VILLA DOLORES*BN, ARG	9011	11 16	4 46 11.07	7 12 30	14 39				434013
10814	CURACAO*BN, N.W.I.	9009	11 16	6 55 04.47	4 59 48	-44 40				434023
10818	SHIRAZ*BN, IRAN	9008	11 16	14 51 57.97	22 16 30	56 51				434013
30285	COLUMBUS, OHIO	0051	11 16	23 29 25.8			180 00	37 48		845303
50020	AIKEN, S.C.	6023	11 16	23 29 46.0	21 46 30	27 04				634042
10823	OLIFANTSFNTN*BN, S.AF	9002	11 17	0 20 49.73	7 21 06	-11 47				434013
30286	PUEBLA, MEX.	0900	11 17	1 43 29.0	0 55 00	85 22				845043
10820	VILLA DOLORES*BN, ARG	9011	11 17	4 31 35.70	7 04 30	14 08				434013
10821	VILLA DOLORES*BN, ARG	9011	11 17	4 35 49.70	7 49 30	6 08				434013
10819	CURACAO*BN, N.W.I.	9009	11 17	6 40 57.67	4 42 00	-44 55				434023
10827	VILLA DOLORES*BN, ARG	9011	11 17	6 51 17.84	7 16 00	-5 25				434013
10828	VILLA DOLORES*BN, ARG	9011	11 17	6 58 01.41	9 09 12	-15 30				434013
10825	WOOMERA*BN, AUSTR.	9003	11 17	15 19 04.40	6 39 00	15 10				834013
10824	WOOMERA*BN, AUSTR.	9003	11 17	17 40 34.13	8 06 42	-9 59				834013
30287	FT. BELVOIR, VA.	0077	11 17	23 17 07.4			180	45 30		845303
30288	N. CANTON, OHIO	8565	11 17	23 17 22.5	23 19 18	-13 37				845013
30289	ALBUQUERQUE, N.M.	8579	11 18	1 27 32.9			180 00	71 36		845302
10822	ORGAN PASS*BN, N.M.	9001	11 18	1 27 42.10	22 29 54	37 01				434013
30291	PUEBLA, MEX.	0900	11 18	1 29 40.0	1 00 00	86 03				845043
30292	PUEBLA, MEX.	0900	11 18	1 29 53.4	2 22 42	83 34				845043
10829	VILLA DOLORES*BN, ARG	9011	11 18	6 33 35.04	6 16 42	0 15				434013
10830	VILLA DOLORES*BN, ARG	9011	11 18	6 45 21.11	9 33 30	-17 45				434013
10834	TOKYO*BN, JAPAN	9005	11 18	10 09 24.00	21 49 12	6 51				434013
10832	WOOMERA*BN, AUSTR.	9003	11 18	17 25 39.27	6 55 24	-10 22				434013
10833	SAN FERNANDO*BN, SP.	9004	11 18	18 45 26.60	22 19 06	5 49				434013
30290	ALBUQUERQUE, N.M.	8579	11 19	1 13 50.1			180 00	70 00		845303
30296	PUEBLA, MEX.	0900	11 19	1 16 01.9	2 29 00	85 37				845043
10836	AREQUIPA*BN, PERU	9007	11 19	6 14 13.82	5 27 30	-13 51				434013
10831	ORGAN PASS*BN, N.M.	9001	11 20	1 00 00.60	21 23 36	37 42				434013
30293	ST. LOUIS, MO.	0140	11 20	1 03 58.0	22 58 18	-11 24				845012
30297	SACRAMENTO, CAL.	8590	11 20	3 13 58.6	23 07 42	-12 06				845013
10837	MAUI*BN, HAWAII	9012	11 20	5 23 20.70	0 17 00	79 55				434013
30310	HIGASHIMATSUYAMA, JAP	0210	11 20	9 42 19.6			0 00	52 12		845303
10835	TOKYO*BN, JAPAN	9005	11 20	9 42 30.60	22 27 18	1 43				434013
30298	PUEBLA, MEX.	0900	11 21	0 48 36.2	4 19 30	85 26				845043
10838	ORGAN PASS*BN, N.M.	9001	11 21	0 48 40.29	1 43 48	16 36				434013
30299	PUEBLA, MEX.	0900	11 21	0 48 55.4	4 02 42	80 32				845043
10841	JUPITER*BN, FLA.	9010	11 21	0 50 00.80	18 32 06	33 53				434013
10842	JUPITER*BN, FLA.	9010	11 21	0 50 28.94	19 00 54	36 36				434013
30300	CINCINNATI, OHIO	0050	11 21	0 50 55.5	22 20 18	-15 45				845004
30301	SACRAMENTO, CAL.	8590	11 21	3 00 15.8	22 48 24	-13 34				845013
11055	MAUI*BN, HAWAII	9012	11 21	5 09 53.15	1 36 48	77 22				434013
10840	TOKYO*BN, JAPAN	9005	11 21	9 28 42.00	22 08 48	-1 32				434013
30311	HIGASHIMATSUYAMA, JAP	0210	11 21	9 29 03.8			180 00	49 48		845303
10844	SHIRAZ*BN, IRAN	9008	11 21	15 59 25.56	20 50 12	23 03				434013
10839	WOOMERA*BN, AUSTR.	9003	11 21	16 41 00.30	6 20 18	-11 12				434013
10847	OLIFANTSFNTN*BN, S.AF	9002	11 21	23 03 20.74	5 21 42	-3 35				434013
10848	OLIFANTSFNTN*BN, S.AF	9002	11 22	1 28 30.74	7 02 00	-36 52				434023
10843	AREQUIPA*BN, PERU	9007	11 22	5 33 59.39	6 18 12	-26 08				434023
10845	VILLA DOLORES*BN, ARG	9011	11 22	7 46 40.83	3 53 36	-7 37				434013
10846	VILLA DOLORES*BN, ARG	9011	11 22	7 58 05.08	6 48 06	-27 35				434023
10850	NAINI TAL*BN, INDIA	9006	11 22	13 36 00.94	23 05 18	29 30				434013
10851	SHIRAZ*BN, IRAN	9008	11 22	15 46 23.00	21 53 18	18 37				434013
10849	WOOMERA*BN, AUSTR.	9003	11 22	16 26 08.29	6 07 54	-11 19				434013
10853	JUPITER*BN, FLA.	9010	11 23	0 22 15.14	17 45 30	30 14				434013
10854	JUPITER*BN, FLA.	9010	11 23	0 24 32.45	21 13 12	40 43				434013
10855	JUPITER*BN, FLA.	9010	11 23	0 25 33.47	23 45 24	33 01				434013
30302	CHINA LAKE, CAL.	0098	11 23	2 33 16.0			195 39 00	44 02 24		641303
10852	ORGAN PASS*BN, N.M.	9001	11 23	2 35 38.13	22 04 48	-5 46				434013
10861	VILLA DOLORES*BN, ARG	9011	11 23	7 43 03.66	6 30 36	-27 38				434023
10862	VILLA DOLORES*BN, ARG	9011	11 23	7 48 23.54	8 35 30	-32 12				434023
10856	WOOMERA*BN, AUSTR.	9003	11 23	18 35 49.33	7 44 54	-34 12				434023
30303	CINCINNATI, OHIO	0050	11 24	0 09 40.1	21 40 30	-21 53				845004
30304	W.PALM BEACH, FLA.	0016	11 24	1 11 39			18 00	79 30		845302
10868	AREQUIPA*BN, PERU	9007	11 24	7 25 13.55	5 51 24	-49 32				434023
10858	TOKYO*BN, JAPAN	9005	11 24	8 48 15.20	22 56 00	-11 50				434013
10859	NAINI TAL*BN, INDIA	9006	11 24	13 08 38.94	22 58 48	23 24				434013
10857	WOOMERA*BN, AUSTR.	9003	11 24	15 56 37.58	5 44 00	-11 30				434013
10873	VILLA DOLORES*BN, ARG	9011	11 25	7 16 07.10	7 17 18	-31 27				434023
10867	NAINI TAL*BN, INDIA	9006	11 25	12 54 54.68	22 44 48	21 16				434013
10863	WOOMERA*BN, AUSTR.	9003	11 25	16 05 56.25	7 22 12	-34 33				434023
30305	CINCINNATI, OHIO	0050	11 25	23 42 13.2	21 14 00	-25 11				845004
30306	W.PALM BEACH, FLA.	0016	11 25	23 44 12			19	83		845303
10864	WOOMERA*BN, AUSTR.	9003	11 26	15 26 56.97	5 16 00	-11 11				434013
10870	JUPITER*BN, FLA.	9010	11 26	23 27 39.83	17 06 00	27 20				434013
10871	JUPITER*BN, FLA.	9010	11 26	23 30 14.30	21 55 42	30 38				434013
10872	JUPITER*BN, FLA.	9010	11 26	23 31 41.03	1 03 36	8 26				434013
10874	MAUI*BN, HAWAII	9012	11 27	6 03 22.04	20 28 42	15 56				434013
10865	WOOMERA*BN, AUSTR.	9003	11 27	15 12 36.34	5 11 12	-11 57				434013
10875	WOOMERA*BN, AUSTR.	9003	11 28	17 18 06.61	5 46 30	-31 37				434023

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10876	SAN FERNANDO BN, SP.	9004	11 28	18 44 36.40	21 05 06	-31 35				434023
30307	PUEBLA, MEX.	0900	11 29	1 16 49.7	23 44 18	-28 10				845043
10877	AREQUIPA BN, PERU	9007	11 29	8 41 34.27	9 54 36	-51 58				434023
10882	OLIFANTSFNTN BN, S.AF	9002	11 29	23 29 08.00	5 05 06	-39 29				434023
10878	ORGAN PASS BN, N.M.	9001	11 30	0 59 26.16	20 20 30	-21 40				434013
10883	OLIFANTSFNTN BN, S.AF	9002	11 30	1 54 26.30	7 54 24	-42 42				434023
10879	VILLA OLORES BN, ARG	9011	11 30	3 40 25.65	5 06 54	-7 44				434013
10880	VILLA OLORES BN, ARG	9011	11 30	5 54 03.34	3 01 12	-16 33				434013
10881	VILLA OLORES BN, ARG	9011	11 30	5 59 50.23	5 24 12	-30 08				434023
10884	WOOMERA BN, AUSTR.	9003	11 30	16 51 46.63	6 30 00	-35 37				434023
10887	VILLA OLORES BN, ARG	9011	12 01	3 26 54.56	5 22 24	-10 18				434013
10888	VILLA OLORES BN, ARG	9011	12 01	3 31 59.12	7 16 36	-18 40				434013
11056	MAUI BN, HAWAII	9012	12 01	5 10 23.72	22 43 00	-20 00				434013
10889	VILLA OLORES BN, ARG	9011	12 01	5 43 37.46	4 28 00	-27 20				434023
10890	VILLA OLORES BN, ARG	9011	12 01	5 48 20.61	6 44 36	-33 19				434023
10886	WOOMERA BN, AUSTR.	9003	12 01	14 14 37.26	4 26 12	-12 00				434013
10885	WOOMERA BN, AUSTR.	9003	12 01	16 37 15.99	6 26 06	-35 58				434023
10896	VILLA OLORES BN, ARG	9011	12 02	3 12 48.11	5 22 00	-10 59				434013
10901	MAUI BN, HAWAII	9012	12 02	4 56 14.66	21 37 06	-17 35				434013
10897	VILLA OLORES BN, ARG	9011	12 02	5 26 58.37	3 17 18	-22 00				434023
10898	VILLA OLORES BN, ARG	9011	12 02	5 37 20.13	8 11 54	-31 45				434023
10891	WOOMERA BN, AUSTR.	9003	12 02	14 00 19.73	4 17 42	-12 18				434013
10892	WOOMERA BN, AUSTR.	9003	12 02	16 21 59.82	5 58 00	-35 58				434023
10899	VILLA OLORES BN, ARG	9011	12 03	5 14 34.37	4 05 30	-28 05				434023
10900	VILLA OLORES BN, ARG	9011	12 03	5 20 28.91	7 09 48	-33 15				434023
10893	WOOMERA BN, AUSTR.	9003	12 03	13 44 48.00	3 22 48	-7 22				434013
10894	WOOMERA BN, AUSTR.	9003	12 04	13 31 40.09	3 53 54	-12 00				434013
10895	WOOMERA BN, AUSTR.	9003	12 04	18 17 03.03	8 08 12	-26 30				434023
10902	WOOMERA BN, AUSTR.	9003	12 05	10 59 08.17	3 25 18	-30 07				434013
10903	WOOMERA BN, AUSTR.	9003	12 05	15 38 49.41	5 45 24	-37 02				434023
10904	WOOMERA BN, AUSTR.	9003	12 05	18 02 04.87	7 55 06	-26 15				434023
10905	VILLA OLORES BN, ARG	9011	12 06	2 14 02.59	3 49 36	-3 57				434013
10906	VILLA OLORES BN, ARG	9011	12 06	2 18 19.65	6 14 36	-16 25				434013
10907	VILLA OLORES BN, ARG	9011	12 06	4 32 40.65	4 16 30	-31 59				434023
10908	WOOMERA BN, AUSTR.	9003	12 06	13 03 23.25	3 39 12	-12 33				434013
10909	WOOMERA BN, AUSTR.	9003	12 06	15 23 55.15	5 23 36	-37 16				434023
10911	OLIFANTSFNTN BN, S.AF	9002	12 06	19 27 55.54	2 17 54	-4 28				434013
10910	VILLA OLORES BN, ARG	9011	12 07	4 20 25.01	5 33 30	-34 34				434023
10913	WOOMERA BN, AUSTR.	9003	12 07	12 49 06.70	3 23 06	-12 02				434013
10912	WOOMERA BN, AUSTR.	9003	12 07	15 09 17.31	5 06 18	-37 32				434023
10915	WOOMERA BN, AUSTR.	9003	12 08	12 34 58.96	3 12 18	-11 56				434013
10916	WOOMERA BN, AUSTR.	9003	12 08	14 55 01.10	5 02 24	-37 58				434023
10917	VILLA OLORES BN, ARG	9011	12 09	1 31 24.00	3 05 12	-0 52				434013
10918	WOOMERA BN, AUSTR.	9003	12 09	12 20 52.41	3 00 36	-11 50				434013
10919	WOOMERA BN, AUSTR.	9003	12 09	14 40 45.25	4 57 24	-38 23				434023
10923	AREQUIPA BN, PERU	9007	12 10	5 56 58.09	7 23 18	-57 45				434023
10925	VILLA OLORES BN, ARG	9011	12 11	8 06 25.12	7 59 42	-1 49				434013
10924	AREQUIPA BN, PERU	9007	12 11	8 07 22.83	8 55 54	-21 59				434013
10926	VILLA OLORES BN, ARG	9011	12 11	8 10 00.81	8 59 18	-9 12				434013
10920	WOOMERA BN, AUSTR.	9003	12 11	11 52 57.89	2 51 54	-12 54				434013
10922	WOOMERA BN, AUSTR.	9003	12 11	14 15 39.21	7 12 48	-32 24				434023
10921	WOOMERA BN, AUSTR.	9003	12 11	18 51 52.34	6 43 54	-3 32				434013
10928	VILLA OLORES BN, ARG	9011	12 12	3 08 40.39	4 45 24	-36 04				434023
10929	VILLA OLORES BN, ARG	9011	12 12	3 12 30.10	7 24 18	-28 11				434023
10930	VILLA OLORES BN, ARG	9011	12 12	5 29 06.12	6 29 00	-24 51				434023
10932	MAUI BN, HAWAII	9012	12 12	11 28 49.00	11 45 36	-26 38	10 40	07 30		434023
10927	WOOMERA BN, AUSTR.	9003	12 12	18 41 23.74	7 47 54	-6 12				434013
10937	VILLA OLORES BN, ARG	9011	12 13	0 35 24.80	2 27 30	-1 03				434013
10938	VILLA OLORES BN, ARG	9011	12 13	2 54 07.95	4 15 54	-36 30				434023
10931	AREQUIPA BN, PERU	9007	12 13	5 13 36.86	7 12 12	-59 00				434023
10934	OLIFANTSFNTN BN, S.AF	9002	12 13	20 08 58.85	2 46 12	-57 02				434023
10935	OLIFANTSFNTN BN, S.AF	9002	12 14	0 50 23.95	6 30 36	-12 06				434013
10936	SAN FERNANDO BN, SP.	9004	12 14	5 42 37.50	12 24 48	-17 24				434013
10940	VILLA OLORES BN, ARG	9011	12 14	7 28 54.29	9 19 36	-18 43				434013
10943	WOOMERA BN, AUSTR.	9003	12 14	18 11 39.82	7 21 48	-8 07				434013
10941	OLIFANTSFNTN BN, S.AF	9002	12 14	22 15 50.54	6 15 42	-41 40				434023
10942	OLIFANTSFNTN BN, S.AF	9002	12 15	0 38 46.14	7 47 30	-2 52				434013
10944	SHIRAZ BN, IRAN	9008	12 15	1 04 37.48	11 58 36	-17 41				434013
10946	VILLA OLORES BN, ARG	9011	12 15	2 22 57.15	0 27 54	-26 05				434023
10947	VILLA OLORES BN, ARG	9011	12 15	2 33 02.49	8 17 18	-17 24				434013
10945	AREQUIPA BN, PERU	9007	12 15	4 44 43.81	6 56 36	-60 46				434013
10948	VILLA OLORES BN, ARG	9011	12 15	4 47 23.13	6 54 54	-17 50				434013
10949	WOOMERA BN, AUSTR.	9003	12 15	10 56 55.31	1 59 30	-12 27				434013
10950	WOOMERA BN, AUSTR.	9003	12 15	13 15 13.15	3 52 18	-41 05				434023
10951	WOOMERA BN, AUSTR.	9003	12 15	18 00 02.91	8 05 18	-16 06				434013
10952	SAN FERNANDO BN, SP.	9004	12 16	5 15 21.70	12 37 48	-11 09				434013

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10953	JUPITER'BN, FLA.	9010	12 16	9 26 21.14	11 34 18	-17 19				434013
10954	JUPITER'BN, FLA.	9010	12 16	9 31 38.69	12 43 48	- 6 00				434013
10955	JUPITER'BN, FLA.	9010	12 16	9 38 59.68	14 18 48	6 24				434013
10958	WOOMERA'BN, AUSTR.	9003	12 16	10 42 56.77	1 43 18	-12 17				434013
10956	ORGAN PASS'BN, N.M.	9001	12 16	11 41 04.53	12 09 18	-12 22				434013
10960	WOOMERA'BN, AUSTR.	9003	12 16	15 20 55.88	5 47 18	-18 54				434013
10959	WOOMERA'BN, AUSTR.	9003	12 16	17 41 42.36	6 47 30	9 30				434013
10963	MAINI TAL'BN, INDIA	9006	12 16	22 30 25.04	13 03 36	- 5 00				434013
10968	VILLA DOLORES'BN, ARG	9011	12 17	6 37 42.11	6 43 12	8 33				434013
10965	CURACAO'BN, N.W.I.	9009	12 17	6 46 47.34	10 04 24	-35 09				434023
10971	MAUI'BN, HAWAII	9012	12 17	13 25 36.02	11 12 54	-19 35				434013
10961	WOOMERA'BN, AUSTR.	9003	12 17	15 05 19.79	4 37 54	-21 14				434013
10962	WOOMERA'BN, AUSTR.	9003	12 17	17 27 08.64	6 36 42	11 05				434013
10982	TOKYO'BN, JAPAN	9005	12 17	20 11 18.30	12 19 30	- 2 46				434013
10957	OLIFANTSFNTN'BN, S.AF	9002	12 17	21 32 02.44	4 58 30	-45 20				434023
10964	MAINI TAL'BN, INDIA	9006	12 18	0 30 52.82	12 04 06	6 56				434013
10969	VILLA DOLORES'BN, ARG	9011	12 18	1 40 52.85	23 29 06	-24 57				434023
10970	VILLA DOLORES'BN, ARG	9011	12 18	6 21 59.08	6 04 48	7 21				434013
10966	CURACAO'BN, N.W.I.	9009	12 18	6 31 17.36	9 44 54	-37 16				434023
10967	JUPITER'BN, FLA.	9010	12 18	8 57 58.97	11 33 54	-12 37				434013
10972	MAUI'BN, HAWAII	9012	12 18	13 09 54.34	10 53 42	-21 09				434013
10975	VILLA DOLORES'BN, ARG	9011	12 19	6 09 02.01	6 29 12	12 49				434013
10973	ORGAN PASS'BN, N.M.	9001	12 19	10 57 19.86	11 52 54	- 8 15				434013
10976	WOOMERA'BN, AUSTR.	9003	12 19	14 38 06.81	5 19 48	-14 30				434013
10989	VILLA DOLORES'BN, ARG	9011	12 20	1 15 20.07	2 43 36	-39 58				434023
10986	JUPITER'BN, FLA.	9010	12 20	8 23 22.88	10 10 18	-22 57				434013
10987	JUPITER'BN, FLA.	9010	12 20	8 29 37.92	11 34 24	- 8 06				434013
10988	JUPITER'BN, FLA.	9010	12 20	8 35 53.56	12 53 18	4 03				434013
10977	ORGAN PASS'BN, N.M.	9001	12 20	10 37 19.87	10 37 48	-18 47				434013
10978	ORGAN PASS'BN, N.M.	9001	12 20	10 46 33.31	12 37 36	- 0 13				434013
10981	TOKYO'BN, JAPAN	9005	12 20	19 24 38.30	11 20 42	- 3 52				434013
10995	MAINI TAL'BN, INDIA	9006	12 20	23 45 15.44	11 18 36	7 43				434013
10991	VILLA DOLORES'BN, ARG	9011	12 21	3 14 00.51	23 39 12	-16 54				434013
10992	VILLA DOLORES'BN, ARG	9011	12 21	3 20 11.31	5 02 30	-14 15				434013
10980	SAN FERNANDO'BN, SP.	9004	12 21	4 01 06.20	11 52 24	- 6 59				434013
10984	CURACAO'BN, N.W.I.	9009	12 21	8 06 34.71	8 19 24	- 9 29				434013
10985	CURACAO'BN, N.W.I.	9009	12 21	8 12 48.69	10 08 05	9 31				434013
10990	ORGAN PASS'BN, N.M.	9001	12 21	12 47 53.02	11 46 24	14 42				434013
10997	MAUI'BN, HAWAII	9012	12 21	14 47 53.20	10 42 36	12 19				434013
10993	TOKYO'BN, JAPAN	9005	12 21	19 10 30.80	11 23 48	- 1 39				434013
10996	SHIRAZ'BN, IRAN	9008	12 21	23 20 42.05	10 56 30	-12 21				434013
10994	SAN FERNANDO'BN, SP.	9004	12 22	6 08 11.10	12 40 30	14 30				434013
11000	MAUI'BN, HAWAII	9012	12 22	14 32 05.14	10 17 48	10 58				434013
10999	SAN FERNANDO'BN, SP.	9004	12 23	5 52 42.50	12 20 48	14 26				434013
11013	JUPITER'BN, FLA.	9010	12 23	9 55 36.36	8 32 06	- 4 31				434013
11014	JUPITER'BN, FLA.	9010	12 23	10 00 37.51	9 48 12	7 31				434013
11015	JUPITER'BN, FLA.	9010	12 23	10 06 22.24	11 31 48	20 14				434013
30313	PHOENIX, ARIZ.	8576	12 23	12 13 46.5			180	61 54		845304
11002	MAUI'BN, HAWAII	9012	12 23	14 16 00.34	9 47 18	8 37				434013
11021	OLIFANTSFNTN'BN, S.AF	9002	12 23	20 07 39.48	4 34 30	-44 03				434023
11009	MAINI TAL'BN, INDIA	9006	12 23	23 00 37.63	10 54 18	10 25				434013
11016	VILLA DOLORES'BN, ARG	9011	12 24	0 20 35.22	4 29 00	-35 35				434023
11011	CURACAO'BN, N.W.I.	9009	12 24	9 42 40.28	7 38 42	20 20				434013
11012	CURACAO'BN, N.W.I.	9009	12 24	9 52 00.70	10 08 18	45 05				434013
11018	MAUI'BN, HAWAII	9012	12 24	14 02 26.94	10 01 54	13 00				434013
11003	TOKYO'BN, JAPAN	9005	12 24	15 25 41.20	10 55 54	- 0 02				434013
11004	TOKYO'BN, JAPAN	9005	12 24	20 47 23.10	11 36 42	20 36				434013
30314	DENVER, COLO.	8592	12 25	11 48 39.6			175 15 00	56 45 00		845303
11005	TOKYO'BN, JAPAN	9005	12 25	18 11 16.20	10 55 00	1 25				434013
11006	TOKYO'BN, JAPAN	9005	12 25	20 34 42.90	12 15 00	23 50				434013
11017	VILLA DOLORES'BN, ARG	9011	12 26	2 09 58.22	4 26 36	- 2 04				434013
30315	N. CANTON, OHIO	8559	12 26	9 18 04.5	10 04 32	- 4 37				845014
11038	TOKYO'BN, JAPAN	9005	12 26	20 18 52.20	11 48 06	23 20				434013
11022	MAINI TAL'BN, INDIA	9006	12 26	22 18 35.78	11 19 36	17 37				434013
11029	SHIRAZ'BN, IRAN	9008	12 27	0 27 32.64	10 31 18	16 39				434013
11023	MAINI TAL'BN, INDIA	9006	12 27	0 38 24.64	11 17 18	34 13				434013
11024	MAUI'BN, HAWAII	9012	12 27	15 42 41.16	10 56 12	45 50				434013
11044	TOKYO'BN, JAPAN	9005	12 27	17 39 56.00	10 11 24	- 1 16				434013
11030	SHIRAZ'BN, IRAN	9008	12 28	0 13 19.91	10 36 36	18 34				434013
11026	MAINI TAL'BN, INDIA	9006	12 28	0 22 10.79	10 40 54	32 41				434013
11025	SAN FERNANDO'BN, SP.	9004	12 28	4 36 30.80	11 10 54	14 57				434013
11019	CURACAO'BN, N.W.I.	9009	12 28	8 46 44.77	7 39 06	33 38				434013
30317	N. CANTON, OHIO	8559	12 28	8 48 04.0	9 42 50	- 4 51				845014
11020	CURACAO'BN, N.W.I.	9009	12 28	8 53 10.88	9 53 30	50 04				434013
30316	SACRAMENTO, CAL.	8517	12 28	13 20 31.9			180 00	70 20		641304
11045	TOKYO'BN, JAPAN	9005	12 28	17 25 56.30	10 17 06	0 51				434013
11027	SHIRAZ'BN, IRAN	9008	12 28	23 58 30.64	10 29 36	19 17				434013
11028	SHIRAZ'BN, IRAN	9008	12 29	2 22 35.82	12 07 48	38 25				434013
11031	JUPITER'BN, FLA.	9010	12 29	8 33 11.58	9 24 00	16 03				434013
11038	CURACAO'BN, N.W.I.	9009	12 29	8 37 15.14	9 18 00	48 58				434013
11032	JUPITER'BN, FLA.	9010	12 29	8 41 48.43	12 24 54	29 42				434013
11033	JUPITER'BN, FLA.	9010	12 29	8 45 29.92	13 30 48	30 16				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
11034	JUPITER*BN, FLA.	9010	12 29	10 57 55.87	11 06 00	40 31				434013
11035	JUPITER*BN, FLA.	9010	12 29	10 59 20.20	11 41 12	42 00				434013
11036	JUPITER*BN, FLA.	9010	12 29	11 00 16.92	12 06 06	42 39				434013
11037	WOOMERA*BN, AUSTR.	9003	12 29	12 16 42.42	2 48 36	6 44				434013
11046	TOKYO*BN, JAPAN	9005	12 29	19 34 25.40	11 32 48	24 50				434013
11043	VILLA OLORES*BN, ARG	9011	12 30	1 12 57.44	2 03 24	2 40				434013
11041	CURACAO*BN, N.W.I.	9009	12 30	8 20 44.40	8 27 24	46 03				434013
11042	CURACAO*BN, N.W.I.	9009	12 30	8 34 34.29	14 22 30	51 15				434013
30318	VAN NUYS, CAL.	0113	12 30	12 51 59.8			176 36	83 36		845303
11048	TOKYO*BN, JAPAN	9005	12 30	19 20 06.30	11 39 30	25 38				434013
11039	SHIRAZ*BN, IRAN	9008	12 30	23 28 49.98	10 13 54	20 26				434013
30319	N. CANTON, OHIO	8559	12 31	10 29 38.7	11 41 52	18 59				845014

## 1959 ALPHA 2

ADDITIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAO  
SPECIAL REPORTS FOR THE YEAR 1960.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
50010	SPOKANE, WASH.	8142	8 12	4 44 16.0			180 00	47 27 00		845302
50011	SPOKANE, WASH.	8142	8 12	7 09 07.4			180 00	50 14 24		845302
10742	WOOMERA*BN, AUSTR.	9003	8 16	20 04 17.11	3 50 12	2 42				434013

## 1959 ALPHA 2

CORRECTIONS TO OBSERVATION LISTINGS PREVIOUSLY PUBLISHED IN SAO  
SPECIAL REPORTS FOR THE YEAR 1960.

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10266	TOKYO*BN, JAPAN	9005	8 08	12 07 05.10	18 37 36	21 02				434013
30150	WALNUT CREEK, CAL.	8556	8 13	4 28 31.4	17 45 30	17 09	180	75 45 36		845004
30125	SAN JOSE, CAL.	8573	8 13	6 53 09.0						845302
10319	MAUI*BN, HAWAII	9012	8 17	8 08 29.34	20 31 00	48 08				434013
10319	MAUI*BN, HAWAII	9012	8 17	8 08 29.34	20 31 00	48 00				434013
30209	WALNUT CREEK, CAL.	8556	8 22	4 47 56.0	18 41 00	16 30				845004
10352	CURACAO*BN, N.W.I.	9009	8 24	2 22 51.52	20 57 00	38 57				434013
10375	SHIRAZ*BN, IRAN	9008	8 27	16 41 36.73	18 16 54	22 09				434013

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OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10497	OLIFANTSFTN*BN, S.AF	9002	9 01	1 46 02.40	1 46 30	-20 00				434013
30127	CHINA LAKE, CAL.	0098	9 01	3 00 28.3			180 00 00	73 44 24		841303
30128	SACRAMENTO, CAL.	8517	9 01	5 18 47.3			180 00	45 58		841304
10505	MAUI*BN, HAWAII	9012	9 01	7 28 52.14	20 32 12	48 23				434013
10501	AREQUIPA*BN, PERU	9007	9 01	8 15 41.27	1 59 42	-36 31				434023
10508	VILLA OLORES*BN, ARG	9011	9 01	8 20 30.67	2 46 18	20 19				434013
10506	SHIRAZ*BN, IRAN	9008	9 01	16 01 35.89	17 51 54	48 04				434013
10499	WOOMERA*BN, AUSTR.	9003	9 01	16 50 01.48	2 19 18	-2 05				434013
10507	SHIRAZ*BN, IRAN	9008	9 01	18 19 02.71	18 14 36	13 39				434013
10500	WOOMERA*BN, AUSTR.	9003	9 01	19 10 36.94	2 25 30	-23 02				434023
10504	JUPITER*BN, FLA.	9010	9 02	0 41 48.10	19 35 00	55 51				434013
10498	OLIFANTSFTN*BN, S.AF	9002	9 02	1 35 31.90	1 57 54	-23 29	180 00	70 18		845043
30129	ALBUQUERQUE, N.M.	8579	9 02	2 52 43.8						845303
10522	AREQUIPA*BN, PERU	9007	9 02	8 02 31.20	1 13 18	-34 04				434023
10525	VILLA OLORES*BN, ARG	9011	9 02	8 07 46.34	2 15 00	-18 55				434013
10526	VILLA OLORES*BN, ARG	9011	9 02	8 13 37.77	4 20 30	-26 30				434023
10520	SHIRAZ*BN, IRAN	9008	9 02	15 53 02.34	20 46 30	32 28				434013
10509	WOOMERA*BN, AUSTR.	9003	9 02	16 38 58.83	2 18 30	-4 21				434013
10521	SHIRAZ*BN, IRAN	9008	9 02	18 08 44.40	18 28 00	9 20				434013
10514	SAN FERNANDO*BN, SP.	9004	9 02	20 12 44.40	18 27 00	6 39				434013
10524	JUPITER*BN, FLA.	9010	9 03	2 48 35.58	18 43 48	16 35				434013
30131	VAN NUYS, CAL.	0113	9 03	4 58 16.1	19 51 14	-4 16				845043
10510	WOOMERA*BN, AUSTR.	9003	9 03	16 28 57.17	2 43 12	-8 06				434013
10523	SHIRAZ*BN, IRAN	9008	9 03	17 57 57.79	18 19 12	6 14				434013
10511	WOOMERA*BN, AUSTR.	9003	9 03	18 48 37.65	2 31 24	-26 59				845023
10515	SAN FERNANDO*BN, SP.	9004	9 03	20 01 34.50	17 45 54	5 03				434013
30130	CINCINNATI, OHIO	0050	9 04	2 35 54	18 28 00	-13 00				845004
30132	VAN NUYS, CAL.	0113	9 04	4 47 33.4	19 46 45	-7 43				845043
10528	MAUI*BN, HAWAII	9012	9 04	6 56 50.12	20 34 48	42 09				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10527	VILLA DOLORES'BN,ARG	9011	9 04	7 46 01.30	2 07 12	-21 49				434013
10519	NAINI TAL'BN, INOIA	9006	9 04	15 36 25.25	18 33 24	8 21				434013
10512	WOOMERA'BN, AUSTR.	9003	9 04	18 37 47.57	2 39 12	-28 57				434023
10516	SAN FERNANDO'BN, SP.	9004	9 04	19 51 04.40	17 51 54	1 36				434013
10517	SAN FERNANDO'BN, SP.	9004	9 04	22 07 50.10	18 08 24	-14 22				434013
30133	VAN NUYS, CAL.	0113	9 05	4 36 48.5	19 40 03	-11 04				845043
30134	VAN NUYS, CAL.	0113	9 05	4 36 50.6	19 41 27	-11 15				845043
10529	NAINI TAL'BN, INOIA	9006	9 05	15 26 42.39	19 21 42	- 0 14				434013
10530	SHIRAZ'BN, IRAN	9008	9 05	17 36 45.32	18 16 06	- 1 44				434013
10513	WOOMERA'BN, AUSTR.	9003	9 05	18 26 02.64	2 27 42	-29 39				434023
10518	SAN FERNANDO'BN, SP.	9004	9 05	21 57 01.20	17 57 12	-16 59				434013
10531	MAUI'BN, HAWAII	9012	9 06	6 34 36.50	19 28 18	45 06				434013
11066	NAINI TAL'BN, INOIA	9006	9 06	15 14 32.48	17 50 24	3 05				434013
10533	SHIRAZ'BN, IRAN	9008	9 06	17 25 57.77	18 04 18	- 5 06				434013
10532	SAN FERNANDO'BN, SP.	9004	9 06	21 46 49.60	18 08 24	-21 25				434013
10539	MAUI'BN, HAWAII	9012	9 07	6 22 34.86	17 03 54	50 59				434013
10534	VILLA DOLORES'BN,ARG	9011	9 07	9 04 39.91	5 21 30	-32 40				434023
10537	NAINI TAL'BN, INOIA	9006	9 07	15 05 13.22	19 04 06	- 8 10				434013
10538	SHIRAZ'BN, IRAN	9008	9 07	17 15 09.52	17 51 18	- 8 26				434013
10535	WOOMERA'BN, AUSTR.	9003	9 07	18 02 27.39	2 04 24	-30 40				434023
10536	SAN FERNANDO'BN, SP.	9004	9 07	21 35 55.90	17 54 24	-23 26				434023
11067	OLIFANTSFNTN'BN,S.AF	9002	9 08	0 27 11.25	1 46 24	-33 51				434023
10540	VILLA DOLORES'BN,ARG	9011	9 08	6 57 13.88	1 06 30	-23 28				434023
10541	VILLA DOLORES'BN,ARG	9011	9 08	7 05 47.32	4 05 54	-30 49				434023
10542	VILLA DOLORES'BN,ARG	9011	9 08	9 21 18.01	2 37 48	-35 01				434023
10545	SHIRAZ'BN, IRAN	9008	9 08	17 03 32.59	16 52 36	- 7 11				434013
10547	SAN FERNANDO'BN, SP.	9004	9 08	21 25 57.10	18 13 30	-28 28				434023
10546	CURACAO'BN, N.W.I.	9009	9 08	23 30 55.51	22 02 00	68 25				434013
10543	OLIFANTSFNTN'BN,S.AF	9002	9 09	0 16 34.04	1 44 18	-35 09				434023
10544	OLIFANTSFNTN'BN,S.AF	9002	9 09	2 41 32.49	3 41 12	-47 40				434023
10556	MAUI'BN, HAWAII	9012	9 09	6 01 28.86	17 11 12	46 14				434013
10553	SHIRAZ'BN, IRAN	9008	9 09	16 53 50.93	17 18 18	-14 20				434013
10548	OLIFANTSFNTN'BN,S.AF	9002	9 10	2 30 01.90	3 37 18	-48 08				434023
10555	MAUI'BN, HAWAII	9012	9 10	5 51 36.02	18 31 18	37 10				434013
10551	AREQUIPA'BN, PERU	9007	9 10	6 38 34.32	3 35 24	-50 29				434023
10552	AREQUIPA'BN, PERU	9007	9 10	8 55 54.64	2 00 06	-57 19				434023
10554	SHIRAZ'BN, IRAN	9008	9 10	16 43 45.89	18 00 48	-23 01				434023
10549	WOOMERA'BN, AUSTR.	9003	9 10	17 28 09.31	1 55 12	-33 25				434023
10550	WOOMERA'BN, AUSTR.	9003	9 10	19 54 00.99	4 22 30	-34 40				434023
10557	VILLA DOLORES'BN,ARG	9011	9 11	6 26 12.03	2 05 12	-30 57				434023
10558	VILLA DOLORES'BN,ARG	9011	9 11	8 52 15.65	4 37 00	-33 15				434023
10560	OLIFANTSFNTN'BN,S.AF	9002	9 12	1 07 51.30	3 53 24	-45 05				434023
11068	CURACAO'BN, N.W.I.	9009	9 12	1 15 52.54	17 47 48	12 45				434013
10564	VILLA DOLORES'BN,ARG	9011	9 12	6 13 46.41	1 40 00	-31 00				434023
10565	VILLA DOLORES'BN,ARG	9011	9 12	8 25 48.80	23 29 48	-25 05				434023
10561	AREQUIPA'BN, PERU	9007	9 12	8 36 35.54	3 44 54	-57 59				434023
10566	VILLA DOLORES'BN,ARG	9011	9 12	8 44 29.82	5 50 18	-26 24				434023
10563	JUPITER'BN, FLA.	9010	9 13	1 01 51.35	17 36 42	-25 05				434023
10562	CURACAO'BN, N.W.I.	9009	9 13	1 05 42.68	18 09 30	3 54				434013
10559	OLIFANTSFNTN'BN,S.AF	9002	9 13	1 53 29.90	2 35 54	-45 41				434023
10568	JUPITER'BN, FLA.	9010	9 14	0 52 03.16	18 22 42	-33 44				434023
10567	CURACAO'BN, N.W.I.	9009	9 14	0 55 36.92	18 37 00	- 8 12				434013
10569	OLIFANTSFNTN'BN,S.AF	9002	9 14	1 43 30.30	3 11 42	-45 36				434023
10572	AREQUIPA'BN, PERU	9007	9 14	5 09 15.45	1 34 54	-57 40				434023
10571	NAINI TAL'BN, INOIA	9006	9 14	13 48 55.78	16 22 18	-26 40				434023
10570	OLIFANTSFNTN'BN,S.AF	9002	9 15	1 31 52.60	3 09 18	-44 46				434023
10576	VILLA DOLORES'BN,ARG	9011	9 15	5 42 14.80	2 39 48	-33 32				434023
10577	VILLA DOLORES'BN,ARG	9011	9 15	5 48 12.45	4 32 24	-28 57				434023
10578	VILLA DOLORES'BN,ARG	9011	9 15	8 01 16.87	2 29 00	-34 40				434023
10579	VILLA DOLORES'BN,ARG	9011	9 15	8 05 32.06	4 05 24	-31 09				434023
10574	WOOMERA'BN, AUSTR.	9003	9 15	16 31 10.44	1 52 06	-36 38				434023
10575	JUPITER'BN, FLA.	9010	9 16	0 28 50.80	16 03 24	-28 50				434023
10584	CURACAO'BN, N.W.I.	9009	9 16	0 54 00.12	18 11 42	-19 16				434013
10573	OLIFANTSFNTN'BN,S.AF	9002	9 16	1 19 50.30	2 54 06	-44 41				434023
10585	CURACAO'BN, N.W.I.	9009	9 17	0 23 19.78	17 54 36	-23 59				434023
10580	OLIFANTSFNTN'BN,S.AF	9002	9 17	1 08 37.80	3 01 00	-44 00				434023
10587	VILLA DOLORES'BN,ARG	9011	9 17	7 33 34.12	0 38 30	-34 48				434023
10588	VILLA DOLORES'BN,ARG	9011	9 17	7 40 08.67	3 08 36	-32 15				434023
10581	WOOMERA'BN, AUSTR.	9003	9 17	16 10 20.87	2 41 48	-36 14				434023
10582	WOOMERA'BN, AUSTR.	9003	9 17	18 29 23.38	2 27 54	-33 01				434023
10586	CURACAO'BN, N.W.I.	9009	9 18	0 11 09.54	16 05 36	-12 55				434013
10589	VILLA DOLORES'BN,ARG	9011	9 18	7 29 22.37	3 32 54	-29 32				434023
10583	WOOMERA'BN, AUSTR.	9003	9 18	18 20 08.89	3 16 48	-29 47				434023
10590	AREQUIPA'BN, PERU	9007	9 19	7 09 10.10	0 07 42	-57 27				434023
10595	VILLA DOLORES'BN,ARG	9011	9 19	7 10 04.80	0 24 00	-32 51				434023
10596	VILLA DOLORES'BN,ARG	9011	9 19	7 29 08.02	6 18 24	- 8 45				434013
10593	WOOMERA'BN, AUSTR.	9003	9 19	18 07 08.80	2 42 06	-30 32				434023
10594	CURACAO'BN, N.W.I.	9009	9 19	23 50 56.79	17 00 36	-37 05				434023
10591	OLIFANTSFNTN'BN,S.AF	9002	9 20	0 34 18.30	3 03 06	-41 40				434023



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10592	OLIFANTSFNTN'BN,S.AF	9002	9 20	3 01 43.80	5 09 06	-9 50				434013
10598	VILLA DOLORES'BN,ARG	9011	9 20	6 58 15.18	0 07 00	-32 35				434023
10599	VILLA DOLORES'BN,ARG	9011	9 20	7 10 55.52	4 42 48	-19 57				434013
10601	CURACAO'BN, N.W.I.	9009	9 21	9 28 34.87	7 23 54	-37 26				434023
10600	WOOMERA'BN, AUSTR.	9003	9 21	17 45 49.84	3 15 12	-25 32				434023
10602	CURACAO'BN, N.W.I.	9009	9 21	23 29 04.68	16 05 12	-40 55				434023
10603	WOOMERA'BN, AUSTR.	9003	9 22	10 27 12.16	21 37 30	32 10				434013
10604	WOOMERA'BN, AUSTR.	9003	9 22	17 31 25.17	2 09 00	-28 37				434023
10605	CURACAO'BN, N.W.I.	9009	9 22	23 18 18.51	15 49 18	-44 14				434023
10607	AREQUIPA'BN, PERU	9007	9 23	6 27 54.70	2 43 24	-55 20				434023
10608	AREQUIPA'BN, PERU	9007	9 23	8 54 55.60	4 33 54	-23 29				434023
30142	TOWNSVILLE, AUSTR.	8578	9 23	10 17 17.2			27 12	74 06		845302
10609	AREQUIPA'BN, PERU	9007	9 24	1 27 28.64	18 04 12	-23 28				434023
10610	AREQUIPA'BN, PERU	9007	9 24	6 16 20.86	2 41 00	-54 57				434023
10611	AREQUIPA'BN, PERU	9007	9 24	8 42 49.27	4 19 18	-22 35				434013
10606	OLIFANTSFNTN'BN,S.AF	9002	9 24	18 47 45.10	18 54 24	3 05				434013
10612	AREQUIPA'BN, PERU	9007	9 25	1 18 01.13	19 17 48	-42 31				434023
10613	AREQUIPA'BN, PERU	9007	9 25	8 28 20.99	3 21 00	-27 28				434023
10614	OLIFANTSFNTN'BN,S.AF	9002	9 25	18 37 53.20	19 42 12	-8 16				434013
10615	OLIFANTSFNTN'BN,S.AF	9002	9 26	1 47 04.40	3 02 00	-10 00				434013
10620	AREQUIPA'BN, PERU	9007	9 26	5 56 46.91	4 01 24	-43 43				434023
10621	CURACAO'BN, N.W.I.	9009	9 26	8 28 30.59	6 11 30	-33 55				434023
10617	WOOMERA'BN, AUSTR.	9003	9 26	11 57 49.91	18 23 54	3 56				434013
10618	WOOMERA'BN, AUSTR.	9003	9 26	16 46 20.18	2 20 24	-21 03				434013
10616	OLIFANTSFNTN'BN,S.AF	9002	9 26	18 27 31.40	20 13 06	-16 38				434013
10619	WOOMERA'BN, AUSTR.	9003	9 26	19 10 21.01	3 22 48	7 52				434013
10623	VILLA DOLORES'BN,ARG	9011	9 27	0 58 02.41	19 54 30	1 38				434013
10624	VILLA DOLORES'BN,ARG	9011	9 27	8 00 39.08	1 28 06	-6 59				434013
10625	VILLA DOLORES'BN,ARG	9011	9 27	8 12 41.43	4 31 48	16 22				434013
10622	CURACAO'BN, N.W.I.	9009	9 27	8 17 22.97	6 10 36	-30 57				434023
10627	WOOMERA'BN, AUSTR.	9003	9 27	16 36 28.24	2 51 00	-15 43				434013
30143	PRETORIA, S.AFR.	8575	9 27	18 16 56.4			22 24	88 00		845303
10626	OLIFANTSFNTN'BN,S.AF	9002	9 27	18 17 10.40	20 55 18	-24 59				434023
10628	WOOMERA'BN, AUSTR.	9003	9 27	18 57 07.79	2 53 42	6 27				434013
10630	VILLA DOLORES'BN,ARG	9011	9 28	0 48 30.64	21 16 24	-9 52				434013
10631	VILLA DOLORES'BN,ARG	9011	9 28	7 48 59.64	1 21 00	-5 21				434013
10629	WOOMERA'BN, AUSTR.	9003	9 28	11 38 31.56	20 18 36	-16 53				434013
10635	MAUI'BN, HAWAII	9012	9 28	14 45 29.04	7 16 12	-18 12				434013
10632	WOOMERA'BN, AUSTR.	9003	9 28	18 44 26.77	2 31 48	6 13				434013
10633	NAINI TAL'BN, INOIA	9006	9 28	23 33 01.32	8 28 30	-8 23				434013
10640	VILLA DOLORES'BN,ARG	9011	9 29	0 37 27.39	21 10 54	-11 10				434013
10641	VILLA DOLORES'BN,ARG	9011	9 29	7 39 26.46	1 49 30	0 20				434013
10642	VILLA DOLORES'BN,ARG	9011	9 29	7 45 04.56	3 18 30	11 47				434013
10634	CURACAO'BN, N.W.I.	9009	9 29	7 54 05.94	5 56 36	-27 30				434023
10639	WOOMERA'BN, AUSTR.	9003	9 29	11 28 13.07	21 04 54	-23 25				434023
10643	MAUI'BN, HAWAII	9012	9 29	14 31 29.57	6 37 12	-19 49				434013
10636	OLIFANTSFNTN'BN,S.AF	9002	9 29	17 54 02.40	18 59 06	-22 10				434013
30144	PRETORIA, S.AFR.	0405	9 29	17 55 25.7	21 15	-34 18				845042
10638	WOOMERA'BN, AUSTR.	9003	9 29	18 33 28.82	2 35 30	7 30				434013
10645	VILLA DOLORES'BN,ARG	9011	9 30	0 26 10.88	20 48 12	-11 00				434013
10637	OLIFANTSFNTN'BN,S.AF	9002	9 30	1 00 02.90	2 35 00	-2 54				434013
10662	VILLA DOLORES'BN,ARG	9011	9 30	7 26 55.99	1 25 12	0 02				434013
10644	JUPITER'BN, FLA.	9010	9 30	10 07 18.88	7 15 24	-10 36				434013
10647	WOOMERA'BN, AUSTR.	9003	9 30	11 17 12.28	21 03 24	-25 30				434023
10656	MAUI'BN, HAWAII	9012	9 30	14 20 35.47	6 40 00	-16 02				434013
10648	WOOMERA'BN, AUSTR.	9003	9 30	18 19 34.58	1 53 48	6 49				434013
10655	VILLA DOLORES'BN,ARG	9011	10 01	0 15 41.55	22 52 18	-20 03				434013
10646	OLIFANTSFNTN'BN,S.AF	9002	10 01	0 47 29.40	2 11 18	-2 58				434013
10650	SHIRAZ'BN, IRAN	9008	10 01	1 17 21.58	7 15 54	-10 11				434013
10653	JUPITER'BN, FLA.	9010	10 01	9 54 08.61	6 44 36	-13 53				434013
10659	OLIFANTSFNTN'BN,S.AF	9002	10 01	17 31 55.30	18 15 24	-25 32				434023
10651	SHIRAZ'BN, IRAN	9008	10 02	1 04 51.24	6 58 48	-9 40				434013
10652	CURACAO'BN, N.W.I.	9009	10 02	7 17 01.86	5 08 54	-27 20				434023
10654	JUPITER'BN, FLA.	9010	10 02	9 41 50.14	6 28 06	-11 38				434013
10649	WOOMERA'BN, AUSTR.	9003	10 02	10 55 00.36	20 44 12	-28 57				434023
10660	OLIFANTSFNTN'BN,S.AF	9002	10 02	17 21 12.30	18 26 48	-33 05				434023
10657	SHIRAZ'BN, IRAN	9008	10 03	0 52 34.19	6 40 36	-9 23				434013
10658	WOOMERA'BN, AUSTR.	9003	10 03	10 43 43.91	20 21 00	-30 02				434023
10661	OLIFANTSFNTN'BN,S.AF	9002	10 04	16 58 58.66	17 19 36	-36 03				434023
10663	ORGAN PASS'BN, N.W.	9001	10 05	11 20 25.50	6 31 42	-4 02				434013
10664	SAN FERNANDO'BN, SP.	9004	10 06	4 42 20.40	7 00 18	-1 36				434013
10665	WOOMERA'BN, AUSTR.	9003	10 06	10 10 43.11	20 02 48	-37 01				434023
10666	SAN FERNANDO'BN, SP.	9004	10 07	4 28 55.40	6 29 48	-2 53				434013
10668	WOOMERA'BN, AUSTR.	9003	10 07	9 59 41.39	19 56 48	-39 30				434023
10669	SAN FERNANDO'BN, SP.	9004	10 08	4 18 01.80	6 37 42	0 16				434013
30145	WOOMERA, AUSTR.	0603	10 08	9 48 43.5			180 30	78 48		845302
10670	VILLA DOLORES'BN,ARG	9011	10 09	1 02 58.13	18 52 06	-34 40				434023

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10667	OLIFANTSFTN*BN,S.AF	9002	10 09	18 22 06.00	19 38 24	-69 50				434023
10671	VILLA OLORES*BN,ARG	9011	10 10	0 53 25.30	21 38 12	-37 51				434023
10674	VILLA OLORES*BN,ARG	9011	10 11	0 42 23.86	21 44 48	-36 27				434023
10672	WOOMERA*BN, AUSTR.	9003	10 11	11 33 00.04	21 31 06	-35 36				434023
10680	MAUI*BN, HAWAII	9012	10 11	12 10 54.86	5 24 12	2 52				434013
10681	MAUI*BN, HAWAII	9012	10 11	14 34 50.19	6 17 48	36 09				434013
10698	SHIRAZ*BN, IRAN	9008	10 11	23 03 23.01	4 58 54	-1 03				434013
10673	SAN FERNANDO*BN, SP.	9004	10 12	3 27 26.70	5 26 48	-0 05				434013
10676	JUPITER*BN, FLA.	9010	10 12	7 42 13.39	5 00 48	2 00				434013
10677	JUPITER*BN, FLA.	9010	10 12	10 06 30.68	6 05 18	32 08				434013
10675	WOOMERA*BN, AUSTR.	9003	10 12	11 21 58.64	21 36 48	-33 22				434023
30146	SACRAMENTO, CAL.	8517	10 12	12 11 18.9			180 00	57 29		641304
10678	SHIRAZ*BN, IRAN	9008	10 12	22 50 56.57	4 43 18	-1 08				434013
10923	NAINI TAL*BN, INDIA	9006	10 12	23 03 31.10	5 48 30	26 09				434013
10679	SHIRAZ*BN, IRAN	9008	10 13	1 16 11.98	6 08 42	30 17				434013
10718	SAN FERNANDO*BN, SP.	9004	10 13	3 17 06.80	5 41 06	4 22				434013
10684	JUPITER*BN, FLA.	9010	10 13	7 29 10.05	4 34 12	0 21				434013
10685	JUPITER*BN, FLA.	9010	10 13	9 54 33.01	5 58 48	33 42				434013
30147	PHOENIX, ARIZ.	8576	10 13	11 04 31.8			180	79 51		845304
10682	WOOMERA*BN, AUSTR.	9003	10 13	11 10 49.80	21 27 12	-31 22				434023
11069	MAUI*BN, HAWAII	9012	10 13	14 05 28.01	4 12 00	28 02				434013
10686	OLIFANTSFTN*BN,S.AF	9002	10 13	17 38 32.80	0 59 36	-71 00				434023
10695	TOKYO*BN, JAPAN	9005	10 13	18 30 07.10	5 44 00	13 45				434013
10687	SHIRAZ*BN, IRAN	9008	10 13	22 39 09.54	4 37 48	0 26				434013
10707	VILLA OLORES*BN,ARG	9011	10 14	0 08 43.46	20 37 42	-33 18				434023
10688	SHIRAZ*BN, IRAN	9008	10 14	1 04 50.19	6 17 06	32 03				434013
10712	SAN FERNANDO*BN, SP.	9004	10 14	3 02 58.00	5 03 54	0 51				434013
10713	SAN FERNANDO*BN, SP.	9004	10 14	5 28 39.40	7 00 42	25 06				434013
10683	CURACAO*BN, N.W.I.	9009	10 14	7 19 57.77	4 02 42	34 54				434013
10690	WOOMERA*BN, AUSTR.	9003	10 14	10 59 45.26	21 25 30	-28 34				434023
10710	MAUI*BN, HAWAII	9012	10 14	13 53 26.52	4 02 48	29 25				434013
10689	OLIFANTSFTN*BN,S.AF	9002	10 14	17 27 02.00	20 50 48	-75 57				434023
10701	SHIRAZ*BN, IRAN	9008	10 14	22 27 56.55	4 42 18	3 17				434013
10697	NAINI TAL*BN, INDIA	9006	10 14	22 38 43.30	5 19 48	27 03				434013
10708	VILLA OLORES*BN,ARG	9011	10 14	23 57 47.63	20 54 24	-30 24				434023
10702	SHIRAZ*BN, IRAN	9008	10 15	0 52 25.99	6 28 00	32 25				434013
10704	CURACAO*BN, N.W.I.	9009	10 15	7 08 51.45	4 12 30	38 25				434013
10705	JUPITER*BN, FLA.	9010	10 15	7 09 42.03	5 17 42	11 07				434013
10706	JUPITER*BN, FLA.	9010	10 15	9 24 45.09	3 48 36	24 28				434013
10691	WOOMERA*BN, AUSTR.	9003	10 15	10 48 33.82	21 07 48	-26 08				434023
30149	WOOMERA, AUSTR.	0603	10 15	10 48 39.2			345 48	83 48		845302
10696	TOKYO*BN, JAPAN	9005	10 15	18 04 59.00	5 06 36	13 47				434013
10709	VILLA OLORES*BN,ARG	9011	10 15	23 46 35.20	20 32 48	-28 20				434023
10703	SHIRAZ*BN, IRAN	9008	10 16	0 38 42.19	5 19 42	30 53				434013
10692	SAN FERNANDO*BN, SP.	9004	10 16	5 03 49.70	6 33 24	25 39				434013
10711	MAUI*BN, HAWAII	9012	10 16	13 29 08.31	3 28 00	31 27				434013
10714	SHIRAZ*BN, IRAN	9008	10 16	22 07 17.40	5 25 12	12 39				434013
10717	VILLA OLORES*BN,ARG	9011	10 16	23 35 27.96	20 41 42	-25 32				434023
10715	SHIRAZ*BN, IRAN	9008	10 17	0 27 08.85	5 24 06	32 29				434013
10693	SAN FERNANDO*BN, SP.	9004	10 17	2 28 43.30	5 11 18	6 49				434013
10694	SAN FERNANDO*BN, SP.	9004	10 17	4 50 57.30	6 10 42	25 31				434013
10721	CURACAO*BN, N.W.I.	9009	10 17	6 48 32.20	5 23 30	46 31				434013
10716	JUPITER*BN, FLA.	9010	10 17	9 05 25.97	5 12 00	36 00				434013
30148	ROCHESTER, N.Y.	8564	10 17	9 07 42.0	5 46 48	12 23				845304
10719	WOOMERA*BN, AUSTR.	9003	10 17	10 26 19.96	20 49 30	-19 13				434013
10756	MAUI*BN, HAWAII	9012	10 17	13 17 42.34	3 41 06	31 28				434013
10720	NAINI TAL*BN, INDIA	9006	10 17	22 02 48.81	5 04 12	30 21				434013
10728	SHIRAZ*BN, IRAN	9008	10 18	0 14 50.32	5 12 12	33 00				434013
10723	WOOMERA*BN, AUSTR.	9003	10 18	10 15 06.63	20 24 12	-16 00				434013
10722	ORGAN PASS*BN, N.M.	9001	10 18	11 06 41.70	5 43 06	31 37				434013
30150	SACRAMENTO, CAL.	8517	10 18	13 25 04.2			180 00	76 14		641304
10724	TOKYO*BN, JAPAN	9005	10 18	17 27 52.90	4 24 24	14 24				434013
10727	SHIRAZ*BN, IRAN	9008	10 19	0 01 39.53	4 39 48	32 06				434013
10726	WOOMERA*BN, AUSTR.	9003	10 19	10 04 04.81	20 27 38	-10 37				434013
10725	ORGAN PASS*BN, N.M.	9001	10 19	10 53 45.70	15 15 54	31 16				434013
30151	SACRAMENTO, CAL.	8517	10 19	13 12 50.9			180 00	76 08		641304
10730	NAINI TAL*BN, INDIA	9006	10 19	21 36 19.81	3 54 06	27 52				434013
10737	SHIRAZ*BN, IRAN	9008	10 19	23 49 59.29	4 41 30	33 25				434013
10729	SAN FERNANDO*BN, SP.	9004	10 20	4 12 05.00	4 56 00	24 14				434013
10732	JUPITER*BN, FLA.	9010	10 20	8 29 35.65	5 13 00	43 02				434013
10731	ORGAN PASS*BN, N.M.	9001	10 20	10 43 55.00	6 02 42	34 44				434013
30152	SACRAMENTO, CAL.	8517	10 20	13 00 36.9			180 00	76 05		641304
10733	TOKYO*BN, JAPAN	9005	10 20	17 05 19.40	4 40 18	18 37				434013
10734	TOKYO*BN, JAPAN	9005	10 20	19 30 31.20	7 55 12	29 32				434013
10735	NAINI TAL*BN, INDIA	9006	10 20	21 31 46.31	6 46 00	35 50				434013
10740	SHIRAZ*BN, IRAN	9008	10 20	23 38 43.09	4 54 00	35 16				434013
10736	NAINI TAL*BN, INDIA	9006	10 20	23 55 28.19	8 23 18	36 19				434013
10739	JUPITER*BN, FLA.	9010	10 21	8 18 29.31	5 19 48	40 34				434013
10738	CURACAO*BN, N.W.I.	9009	10 21	8 27 17.70	7 57 18	59 45				434013
30153	SACRAMENTO, CAL.	8517	10 21	12 48 22.0			180 00	75 56		641304
30154	CHINA LAKE, CAL.	8588	10 21	12 50 23.5			180 00 00	83 28 48		545303
10743	TOKYO*BN, JAPAN	9005	10 21	16 53 54.20	4 46 24	19 57				434013
10744	TOKYO*BN, JAPAN	9005	10 21	19 17 19.10	6 25 30	29 35				434013

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10745	NAINI TAL'BN, INOIA	9006	10 21	21 14 23.32	4 42 36	34 03				434013
10749	SHIRAZ'BN, IRAN	9008	10 21	23 27 56.77	5 21 36	37 07				434013
10746	NAINI TAL'BN, INOIA	9006	10 21	23 39 22.35	6 43 00	39 34				434013
10753	JUPITER'BN, FLA.	9010	10 22	8 04 13.37	4 12 00	39 00				434013
10752	CURACAO'BN, N.W.I.	9009	10 22	8 08 30.33	4 18 42	61 35				434013
30157	PHOENIX, ARIZ.	8576	10 22	10 15 24.1			180 00	85 34 12		645304
10741	ORGAN PASS'BN, N.M.	9001	10 22	10 18 51.80	5 29 36	33 43				434013
30155	SACRAMENTO, CAL.	8517	10 22	12 36 07.9			160 00	75 46		641304
30156	CHINA LAKE, CAL.	8588	10 22	12 38 12.0			180 00 00	83 12 36		645303
10747	NAINI TAL'BN, INOIA	9006	10 22	21 04 32.67	5 20 36	36 18				434013
10750	SHIRAZ'BN, IRAN	9008	10 22	23 09 27.88	4 36 00	36 29				434013
10748	NAINI TAL'BN, INOIA	9006	10 22	23 32 53.90	8 47 42	32 17				434013
10751	SHIRAZ'BN, IRAN	9008	10 23	1 41 01.94	7 29 00	35 33				434013
10754	JUPITER'BN, FLA.	9010	10 23	7 55 26.57	5 36 54	42 18				434013
10742	ORGAN PASS'BN, N.M.	9001	10 23	10 05 39.58	4 54 00	33 20				434013
10755	JUPITER'BN, FLA.	9010	10 23	10 19 06.07	7 13 24	40 41				434013
30158	SACRAMENTO, CAL.	8517	10 23	12 23 54.3			180 00	75 30		641304
10757	SHIRAZ'BN, IRAN	9008	10 23	23 01 48.57	4 11 00	36 21				434013
10764	AREQUIPA'BN, PERU	9007	10 24	0 34 18.46	20 34 24	-30 47				434023
10758	SHIRAZ'BN, IRAN	9008	10 24	1 27 50.30	6 58 30	35 53				434013
10759	JUPITER'BN, FLA.	9010	10 24	7 41 56.05	4 48 12	42 25				434013
10760	JUPITER'BN, FLA.	9010	10 24	10 05 26.16	6 29 30	41 22				434013
30159	CHINA LAKE, CAL.	8588	10 24	12 13 48.9			175 10 12	82 24 30		645303
10768	SHIRAZ'BN, IRAN	9008	10 24	22 51 27.04	4 51 30	38 32				434013
10761	NAINI TAL'BN, INOIA	9006	10 24	23 01 53.61	5 58 18	38 55				434013
10767	AREQUIPA'BN, PERU	9007	10 25	0 23 13.43	20 28 12	-23 38				434023
10769	SHIRAZ'BN, IRAN	9008	10 25	1 15 31.66	6 48 36	35 25				434013
10770	JUPITER'BN, FLA.	9010	10 25	7 31 31.82	5 30 48	43 18				434013
10763	CURACAO'BN, N.W.I.	9009	10 25	7 52 50.24	10 49 12	31 25				434013
10762	CURACAO'BN, N.W.I.	9009	10 25	7 32 54.89	4 16 06	64 11				434013
30162	MAISON, WISC.	0148	10 25	9 33 18.4	4 47 00	6 48				645042
10765	ORGAN PASS'BN, N.M.	9001	10 25	9 41 12.80	4 29 48	33 49				434013
10771	JUPITER'BN, FLA.	9010	10 25	9 52 23.72	5 59 42	41 27				434013
30160	SACRAMENTO, CAL.	8517	10 25	11 59 28.3			180 00	74 33		641304
30161	CHINA LAKE, CAL.	8588	10 25	12 01 26.9			180 00 00	82 13 48		645303
10766	ORGAN PASS'BN, N.M.	9001	10 25	12 04 11.60	4 07 18	30 05				434013
10778	TOKYO'BN, JAPAN	9005	10 25	18 28 40.80	5 57 30	28 30				434013
10776	SHIRAZ'BN, IRAN	9008	10 25	22 40 47.56	5 25 18	39 16				434013
10774	NAINI TAL'BN, INOIA	9006	10 25	22 50 24.13	6 08 36	38 18				434013
10777	SHIRAZ'BN, IRAN	9008	10 26	1 03 21.12	6 41 30	34 48				434013
10772	SAN FERNANDO'BN, SP.	9004	10 26	3 00 56.80	4 42 24	26 49				434013
10773	SAN FERNANDO'BN, SP.	9004	10 26	5 24 11.80	6 27 18	21 22				434013
10775	ORGAN PASS'BN, N.M.	9001	10 26	9 30 09.50	4 50 24	34 44				434013
10781	SHIRAZ'BN, IRAN	9008	10 26	22 30 27.45	6 44 30	37 13				434013
10779	NAINI TAL'BN, INOIA	9006	10 26	22 37 13.75	5 34 18	38 30				434013
10780	CURACAO'BN, N.W.I.	9009	10 27	7 09 36.09	4 31 06	65 35				434013
10783	ORGAN PASS'BN, N.M.	9001	10 27	9 20 32.42	5 48 12	34 10				434013
10782	JUPITER'BN, FLA.	9010	10 27	9 31 30.64	7 11 48	35 48				434013
10784	ORGAN PASS'BN, N.M.	9001	10 27	11 41 00.72	6 19 00	27 45				434013
30163	DENVER, COLO.	8582	10 27	11 41 50.7			196 30	65 30		645303
10786	MAUI'BN, HAWAII	9012	10 27	13 44 31.88	5 47 30	53 43				434013
10785	NAINI TAL'BN, INOIA	9006	10 27	22 25 20.33	5 33 36	38 07				434013
10787	CURACAO'BN, N.W.I.	9009	10 28	6 58 32.81	5 07 42	66 11				434013
10788	CURACAO'BN, N.W.I.	9009	10 28	9 25 14.62	7 57 00	45 06				434013
30166	SACRAMENTO, CAL.	8517	10 28	11 22 59.2			180 00	73 23		641304
30164	CHINA LAKE, CAL.	0098	10 28	11 24 56.8			180 00 00	80 05 00		641303
10791	NAINI TAL'BN, INOIA	9006	10 28	22 18 19.48	7 30 00	30 23				434013
10798	SHIRAZ'BN, IRAN	9008	10 29	0 26 56.10	6 21 12	32 43				434013
10790	SAN FERNANDO'BN, SP.	9004	10 29	4 49 24.50	6 39 24	16 38				434013
10795	CURACAO'BN, N.W.I.	9009	10 29	6 48 34.69	6 29 36	63 54				434013
10797	JUPITER'BN, FLA.	9010	10 29	9 03 52.79	5 31 24	39 53				434013
10796	CURACAO'BN, N.W.I.	9009	10 29	9 12 55.32	7 45 06	48 38				434013
30167	SACRAMENTO, CAL.	8517	10 29	11 10 52.9			180 00	72 41		641304
10789	ORGAN PASS'BN, N.M.	9001	10 29	11 14 53.10	5 20 36	27 49				434013
30165	DENVER, COLO.	8582	10 29	11 17 16.5			197 42	64 30		645303
10792	NAINI TAL'BN, INOIA	9006	10 29	22 00 36.23	5 01 54	37 37				434013
10794	SHIRAZ'BN, IRAN	9008	10 30	0 14 35.33	6 08 12	32 16				434013
30168	SACRAMENTO, CAL.	8517	10 30	10 58 47.8			180 00	71 36		641304
10793	SHIRAZ'BN, IRAN	9008	10 31	0 03 29.22	6 25 24	29 50				434013
30169	SACRAMENTO, CAL.	8517	10 31	10 46 45.7			180 00	71 06		641304
10799	ORGAN PASS'BN, N.M.	9001	10 31	10 52 48.60	5 55 54	23 35				434013
30170	SACRAMENTO, CAL.	8517	10 31	13 13 32.2			180 00	47 03		641304
10806	NAINI TAL'BN, INOIA	9006	10 31	21 39 16.37	6 05 36	33 11				434013
10811	SHIRAZ'BN, IRAN	9008	10 31	23 50 20.26	5 51 00	30 42				434013
10807	NAINI TAL'BN, INOIA	9006	11 01	0 00 38.21	6 34 42	10 52				434013
10805	SAN FERNANDO'BN, SP.	9004	11 01	4 10 12.40	5 14 42	16 44				434013
10808	CURACAO'BN, N.W.I.	9009	11 01	8 36 16.44	7 17 18	46 41				434013
30171	DENVER, COLO.	8592	11 01	10 40 32.4			199 24	59 16		645303
10809	NAINI TAL'BN, INOIA	9006	11 01	21 29 49.99	7 06 30	26 52				434013
10812	SHIRAZ'BN, IRAN	9008	11 01	23 38 03.60	5 37 12	30 08				434013
10810	NAINI TAL'BN, INOIA	9006	11 01	23 52 05.69	7 28 18	2 05				434013
10813	CURACAO'BN, N.W.I.	9009	11 02	8 25 12.26	7 44 00	41 59				434013
30172	PHOENIX, ARIZ.	8576	11 02	10 27 00.1			179 32 12	78 46		645304

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10814	ORGAN PASS'BN, N.M.	9001	11 02	10 28 53.50	5 45 24	21 00				434013
10818	MAUI'BN, HAWAII	9012	11 02	15 00 40.05	8 03 18	14 55				434013
10819	NAINI TAL'BN, INOIA	9006	11 02	21 15 02.75	5 45 48	31 55				434013
10816	NAINI TAL'BN, INOIA	9006	11 02	23 37 13.19	6 33 24	6 05				434013
10817	CURACAO'BN, N.W.I.	9009	11 03	8 13 12.37	7 27 42	42 08				434013
10824	MAUI'BN, HAWAII	9012	11 03	14 46 49.47	7 24 18	17 36				434013
10819	NAINI TAL'BN, INOIA	9006	11 03	21 06 21.68	6 59 00	23 03				434013
10820	NAINI TAL'BN, INOIA	9006	11 03	23 27 16.86	7 02 30	- 0 06				434013
10821	JUPITER'BN, FLA.	9010	11 04	7 55 00.23	6 19 18	29 11				434013
10822	JUPITER'BN, FLA.	9010	11 04	10 17 13.21	6 49 18	0 27				434013
10823	JUPITER'BN, FLA.	9010	11 04	10 18 49.77	7 15 48	- 3 08				434013
10826	NAINI TAL'BN, INOIA	9006	11 05	23 01 36.52	6 19 36	- 0 36				434013
10827	MAUI'BN, HAWAII	9012	11 06	14 08 41.31	6 21 24	17 23				434013
10830	NAINI TAL'BN, INOIA	9006	11 06	22 49 40.65	6 13 30	- 2 43				434013
10828	CURACAO'BN, N.W.I.	9009	11 07	7 22 32.88	5 51 12	45 59				434013
10832	JUPITER'BN, FLA.	9010	11 07	9 39 42.62	6 01 36	- 2 22				434013
10833	JUPITER'BN, FLA.	9010	11 07	9 40 53.63	6 22 18	- 5 04				434013
10829	CURACAO'BN, N.W.I.	9009	11 07	9 47 19.48	6 52 42	1 54				434013
11070	MAUI'BN, HAWAII	9012	11 07	13 58 50.94	6 57 42	9 17				434013
10831	NAINI TAL'BN, INOIA	9006	11 07	22 37 18.81	5 58 24	- 4 01				434013
10834	JUPITER'BN, FLA.	9010	11 08	0 07 12.63	23 22 24	-43 26				434023
10835	JUPITER'BN, FLA.	9010	11 08	9 23 56.43	4 40 30	4 02				434013
10836	JUPITER'BN, FLA.	9010	11 08	9 28 06.48	6 00 18	- 5 20				434013
10839	MAUI'BN, HAWAII	9012	11 08	13 44 57.43	6 10 42	12 43				434013
10837	CURACAO'BN, N.W.I.	9009	11 09	7 01 34.78	6 54 48	34 09				434013
10838	CURACAO'BN, N.W.I.	9009	11 09	9 24 34.54	6 58 48	- 6 15				434013
10840	NAINI TAL'BN, INOIA	9006	11 09	22 11 18.59	4 57 24	- 3 25				434013
10843	CURACAO'BN, N.W.I.	9009	11 09	23 45 58.47	18 53 12	59 40				434013
10842	SHIRAZ'BN, IRAN	9008	11 10	0 24 14.00	5 28 12	-10 46				434013
11071	CURACAO'BN, N.W.I.	9009	11 10	9 03 58.71	4 20 36	13 46				434013
10858	JUPITER'BN, FLA.	9010	11 10	9 09 26.98	7 28 12	-22 39				434013
10859	JUPITER'BN, FLA.	9010	11 10	9 10 20.88	7 14 24	-21 00				434013
30173	QUEZON CITY, PHILS.	0500	11 10	10 34 39			356	54 12		845302
10841	ORGAN PASS'BN, N.M.	9001	11 10	11 16 27.20	5 52 36	-20 35				434013
10849	NAINI TAL'BN, INOIA	9006	11 10	22 00 27.93	5 13 06	- 8 13				434013
10862	CURACAO'BN, N.W.I.	9009	11 10	23 34 38.52	18 17 00	59 47				434013
10851	SHIRAZ'BN, IRAN	9008	11 11	0 12 58.16	5 31 48	-14 24				434013
10844	ORGAN PASS'BN, N.M.	9001	11 11	1 45 24.90	23 23 54	-37 39				434023
10863	CURACAO'BN, N.W.I.	9009	11 11	6 40 13.84	7 30 06	21 16				434013
10864	CURACAO'BN, N.W.I.	9009	11 11	9 58 57.70	6 15 48	- 6 29				434013
10850	NAINI TAL'BN, INOIA	9006	11 11	21 52 10.25	6 13 48	-18 30				434013
10853	CURACAO'BN, N.W.I.	9009	11 11	23 22 51.10	17 25 00	50 04				434013
10852	SHIRAZ'BN, IRAN	9008	11 12	0 00 10.06	5 06 18	-14 35				434013
10845	ORGAN PASS'BN, N.M.	9001	11 12	1 34 40.21	0 54 00	-33 22				434023
10848	SAN FERNANDO'BN, SP.	9004	11 12	4 20 01.50	4 30 12	-20 45				434013
10860	JUPITER'BN, FLA.	9010	11 12	8 39 59.50	5 19 12	-13 30				434013
30174	CINCINNATI, OHIO	0050	11 12	8 40 05.00	6 00 06	-25 34				845004
10854	CURACAO'BN, N.W.I.	9009	11 12	8 48 20.17	6 31 12	-12 46				434013
10855	CURACAO'BN, N.W.I.	9009	11 12	23 12 56.00	18 48 24	78 09				434013
10846	ORGAN PASS'BN, N.M.	9001	11 13	1 23 39.07	0 10 00	-29 10				434023
10856	CURACAO'BN, N.W.I.	9009	11 13	8 56 39.53	6 28 30	-16 10				434013
10847	ORGAN PASS'BN, N.M.	9001	11 13	10 41 37.69	5 49 48	-28 14				434023
10861	MAUI'BN, HAWAII	9012	11 13	15 07 44.50	5 58 06	-28 50				434023
10867	MAUI'BN, HAWAII	9012	11 14	5 33 17.33	18 10 42	52 42				434023
10857	CURACAO'BN, N.W.I.	9009	11 14	8 22 15.07	5 34 24	-11 28				434013
10868	MAUI'BN, HAWAII	9012	11 14	14 54 29.66	5 29 36	-27 46				434023
10865	OLIFANTSFNTN'BN,S.AF	9002	11 15	1 53 08.10	8 57 24	12 42				434013
10866	CURACAO'BN, N.W.I.	9009	11 15	8 11 00.85	5 38 36	-16 11				434013
30175	PUEBLA, MEX.	0900	11 16	0 50 25.00	21 53 18	80 12				845043
10869	CURACAO'BN, N.W.I.	9009	11 16	7 58 33.17	5 17 30	-16 51				434013
10870	VILLA DOLORES'BN,ARG	9011	11 16	8 08 40.44	7 52 18	21 50				434013
10871	VILLA DOLORES'BN,ARG	9011	11 16	8 14 16.54	9 13 48	9 03				434013
30181	PUEBLA, MEX.	0900	11 17	0 39 25.7	23 55 12	83 06				845043
10876	OLIFANTSFNTN'BN,S.AF	9002	11 17	1 26 10.97	8 02 48	17 20				434013
10878	MAUI'BN, HAWAII	9012	11 17	5 00 03.66	17 40 24	73 32				434013
10872	CURACAO'BN, N.W.I.	9009	11 17	7 47 02.72	5 17 18	-20 57				434013
10873	VILLA DOLORES'BN,ARG	9011	11 17	8 01 59.40	9 05 24	8 05				434013
10874	VILLA DOLORES'BN,ARG	9011	11 17	8 06 22.58	10 07 18	1 01				434013
10877	NAINI TAL'BN, INOIA	9006	11 17	13 40 30.20	19 05 48	21 59				434013
30176	ST. PETERSBURG, FLA.	0121	11 18	0 29 03	18 59	31 50				845032
10875	OLIFANTSFNTN'BN,S.AF	9002	11 18	1 15 46.94	8 22 18	11 26				434013
10890	MAUI'BN, HAWAII	9012	11 18	4 48 26.53	16 36 24	66 45				434013
10879	CURACAO'BN, N.W.I.	9009	11 18	7 35 58.17	5 25 42	-26 11				434023
10880	VILLA DOLORES'BN,ARG	9011	11 18	7 46 27.08	8 08 18	15 05				434013
10881	VILLA DOLORES'BN,ARG	9011	11 18	7 56 25.64	10 12 36	- 5 57				434013
10884	TOKYO'BN, JAPAN	9005	11 18	9 10 03.10	23 31 30	-14 46				434013
10891	MAUI'BN, HAWAII	9012	11 18	14 05 20.75	4 26 36	-32 03				434023
10882	WOOMERA'BN, AUSTR.	9003	11 18	18 39 23.56	6 38 48	4 15				434013
30177	CHINA LAKE, CAL.	8588	11 19	2 29 47.1			167 19 48	44 57 36		845303

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10885	TOKYO*BN, JAPAN	9005	11 19	8 58 37.60	23 11 24	-14 23				434013
10883	WOOMERA*BN, AUSTR.	9003	11 19	18 27 37.23	8 38 36	2 09				434013
30178	ST. LOUIS, MO.	0140	11 20	0 06 20.8	22 21 12	-26 57				845042
30179	BILOXI, MISS.	0090	11 20	0 07 12			270	76 30		845042
10887	JUPITER*BN, FLA.	9010	11 20	0 07 32.96	17 26 42	35 28				434013
10888	JUPITER*BN, FLA.	9010	11 20	0 08 21.44	18 07 30	53 28				434013
50003	AIKEN, S.C.	6023	11 20	0 09 02.8	22 38 00	14 06				634042
10889	JUPITER*BN, FLA.	9010	11 20	0 09 03.01	20 10 30	74 27				434013
30190	HIGASHIMATSUYAMA, JAP	0210	11 20	8 46 50.2			180 00	36 24		845042
10886	TOKYO*BN, JAPAN	9005	11 20	8 47 47.20	0 09 18	- 8 46				434013
10893	NAINI TAL*BN, INOIA	9006	11 20	13 07 43.26	23 04 00	58 10				434013
10892	MAUI*BN, HAWAII	9012	11 20	13 45 05.37	5 07 42	-44 33				434013
10897	JUPITER*BN, FLA.	9010	11 20	23 57 40.77	19 15 12	72 41				434013
50004	AIKEN, S.C.	6023	11 20	23 57 43.6	22 31 00	16 23				634042
10898	JUPITER*BN, FLA.	9010	11 20	23 58 03.94	22 31 12	79 26				434013
10894	VILLA DOLORES*BN, ARG	9011	11 21	7 14 35.68	8 59 24	0 50				434013
10895	VILLA DOLORES*BN, ARG	9011	11 21	7 19 47.50	10 22 48	- 8 45				434013
10900	SHIRAZ*BN, IRAN	9008	11 21	15 07 30.63	22 00 18	65 13				434013
10896	WOOMERA*BN, AUSTR.	9003	11 21	18 02 49.92	8 17 00	1 06				434013
10901	JUPITER*BN, FLA.	9010	11 21	23 46 17.28	18 92 00	72 11				434013
50005	AIKEN, S.C.	6023	11 21	23 46 23.5	22 23 13	16 39				634042
10902	JUPITER*BN, FLA.	9010	11 21	23 47 20.90	5 03 54	70 10				434013
30180	CHINA LAKE, CAL.	8588	11 22	1 55 44.0			189 36 00	49 12 00		845042
10899	AREQUIPA*BN, PERU	9007	11 22	6 52 55.58	6 51 54	- 4 12				434013
10903	SHIRAZ*BN, IRAN	9008	11 22	14 56 14.98	22 25 00	67 20				434013
10904	AREQUIPA*BN, PERU	9007	11 23	6 41 41.91	7 00 42	- 0 30				434013
10911	VILLA DOLORES*BN, ARG	9011	11 23	6 45 31.80	7 22 42	12 09				434013
10912	VILLA DOLORES*BN, ARG	9011	11 23	6 50 56.33	8 58 24	- 2 32				434013
10905	AREQUIPA*BN, PERU	9007	11 23	9 02 43.19	6 48 12	-35 02				434013
10906	WOOMERA*BN, AUSTR.	9003	11 23	17 37 56.90	7 51 30	0 48				434013
10908	JUPITER*BN, FLA.	9010	11 23	23 22 08.25	16 43 24	39 19				434013
10909	JUPITER*BN, FLA.	9010	11 23	23 24 00.83	21 44 00	82 20				434013
10910	JUPITER*BN, FLA.	9010	11 23	23 25 36.81	4 01 06	50 26				434013
10917	AREQUIPA*BN, PERU	9007	11 24	8 50 16.71	6 32 54	-36 02				434013
10907	WOOMERA*BN, AUSTR.	9003	11 24	17 25 47.84	7 43 06	0 04				434013
10921	VILLA DOLORES*BN, ARG	9011	11 25	6 20 16.21	6 41 18	14 53				434013
10922	VILLA DOLORES*BN, ARG	9011	11 25	6 24 12.56	8 01 36	2 15				434013
10913	WOOMERA*BN, AUSTR.	9003	11 25	17 13 32.98	7 32 12	- 0 20				434013
10916	SAN FERNANDO*BN, SP.	9004	11 25	18 43 19.60	22 21 42	0 46				434013
10918	AREQUIPA*BN, PERU	9007	11 26	8 25 21.87	5 56 00	-37 19				434013
10914	WOOMERA*BN, AUSTR.	9003	11 26	17 01 03.85	7 14 48	0 17				434013
10919	VILLA DOLORES*BN, ARG	9011	11 27	5 57 01.86	6 39 24	11 32				434013
10920	VILLA DOLORES*BN, ARG	9011	11 27	6 01 34.36	8 18 36	- 3 23				434013
10915	WOOMERA*BN, AUSTR.	9003	11 27	16 49 08.71	7 09 24	- 0 50				434013
10924	VILLA DOLORES*BN, ARG	9011	11 28	5 44 59.62	6 28 00	11 30				434013
10925	VILLA DOLORES*BN, ARG	9011	11 28	5 49 13.27	8 06 24	- 3 10				434013
10926	VILLA DOLORES*BN, ARG	9011	11 28	8 06 04.71	7 10 54	-22 34				434013
10929	TOKYO*BN, JAPAN	9005	11 28	9 31 53.80	20 22 36	0 13				434013
10927	WOOMERA*BN, AUSTR.	9003	11 28	16 37 09.74	8 36 18	- 1 09				434013
10928	SAN FERNANDO*BN, SP.	9004	11 28	18 09 05.20	21 37 42	2 11				434013
30182	DALLAS, TEX.	0129	11 29	0 40 32.51	22 39 30	32 33				845013
30183	DALLAS, TEX.	0129	11 29	0 40 33.67	22 41 54	32 32				845013
10930	AREQUIPA*BN, PERU	9007	11 29	7 51 18.08	6 25 00	-48 43				434013
10931	SAN FERNANDO*BN, SP.	9004	11 29	17 57 53.80	22 02 18	2 12				434013
30185	SAN ANTONIO, TEX.	0089	11 30	0 28 49.1	22 37	66 18				845012
30184	DALLAS, TEX.	0129	11 30	0 29 11.65	22 33	30 48				845013
10932	VILLA DOLORES*BN, ARG	9011	11 30	5 22 55.66	6 54 24	4 06				434013
10933	VILLA DOLORES*BN, ARG	9011	11 30	7 44 07.29	7 58 06	-28 33				434013
10935	NAINI TAL*BN, INOIA	9006	11 30	13 30 02.93	19 19 12	37 46				434013
10934	WOOMERA*BN, AUSTR.	9003	11 30	16 12 51.42	6 34 12	- 1 28				434013
10936	OLIFANTGENT*BN, S. AF	9002	12 01	1 60 09.70	7 22 12	-38 20				434013
10940	VILLA DOLORES*BN, ARG	9011	12 01	5 12 53.69	7 40 00	- 3 43				434013
10941	VILLA DOLORES*BN, ARG	9011	12 01	7 29 28.05	6 36 54	-24 25				434013
30197	MITAKA, JAPAN	0229	12 01	8 58 40.3			191 48	49 08		845013
10938	TOKYO*BN, JAPAN	9005	12 01	8 58 59.30	23 06 06	-11 19				434013
10939	NAINI TAL*BN, INOIA	9006	12 01	13 19 28.64	21 36 00	40 22				434013
10937	WOOMERA*BN, AUSTR.	9003	12 01	16 01 32.57	6 44 06	- 4 30				434013
50006	AIKEN, S.C.	6023	12 02	0 09 49.2	23 26 00	-13 00				634042
11065	VILLA DOLORES*BN, ARG	9011	12 02	4 59 59.18	7 06 42	- 0 37				434013
10947	VILLA DOLORES*BN, ARG	9011	12 02	7 15 32.96	5 31 54	-19 40				434013
10948	VILLA DOLORES*BN, ARG	9011	12 02	7 24 32.10	9 57 00	-31 55				434013
10945	SHIRAZ*BN, IRAN	9008	12 02	15 19 19.74	22 11 48	13 04				434013
10942	WOOMERA*BN, AUSTR.	9003	12 02	15 49 08.74	6 19 18	- 3 01				434013
10952	JUPITER*BN, FLA.	9010	12 02	23 57 41.99	19 23 54	41 31				434013
30186	SACRAMENTO, CAL.	8517	12 03	2 06 38.5	22 48 54	-24 03				641043
11072	TOKYO*BN, JAPAN	9005	12 03	8 30 58.60	23 41 24	-11 04				434013
10946	SHIRAZ*BN, IRAN	9008	12 03	15 08 03.93	22 23 12	7 19				434013
30187	CINCINNATI, OHIO	0050	12 03	23 43 39.6	21 47 30	-26 03				845004
30191	SACRAMENTO, CAL.	8590	12 04	1 54 18.2	22 41 06	-24 36				845043
30192	SACRAMENTO, CAL.	8517	12 04	1 54 36.5	21 26 48	-20 40				641013

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30193	SACRAMENTO, CAL.	8517	12 04	1 54 53.5	21 56 06	-22 32				641013
30188	CHINA LAKE, CAL.	0098	12 04	1 55 44.3			197 00 00	36 07 46		641303
10943	WOOMERA*BN, AUSTR.	9003	12 04	15 27 12.77	7 06 30	-11 32				434013
10944	WOOMERA*BN, AUSTR.	9003	12 04	17 46 32.34	7 37 12	-36 12				434023
30189	CHINA LAKE, CAL.	8588	12 05	1 44 18.7			197 40 46	35 36 36		645503
10949	WOOMERA*BN, AUSTR.	9003	12 05	15 15 23.62	7 01 42	-12 22				434013
10950	WOOMERA*BN, AUSTR.	9003	12 05	17 34 32.12	7 32 12	-36 54				434023
10953	ORGAN PASS*BN, N.M.	9001	12 06	1 35 19.60	21 44 48	-23 21				434023
10954	VILLA DOLORES*BN, ARG	9011	12 06	6 29 45.01	5 57 30	-29 10				434023
10955	VILLA DOLORES*BN, ARG	9011	12 06	6 34 07.27	6 47 30	-33 48				434023
10957	WOOMERA*BN, AUSTR.	9003	12 06	15 04 06.53	7 16 36	-14 50				434013
10958	WOOMERA*BN, AUSTR.	9003	12 06	17 22 21.76	7 19 00	-37 25				434023
10956	ORGAN PASS*BN, N.M.	9001	12 07	1 23 49.14	21 26 54	-23 12				434023
30194	PUEBLA, MEX.	0900	12 07	1 27 08.7	0 01 12	-28 29				645013
10959	VILLA DOLORES*BN, ARG	9011	12 07	6 19 40.62	6 54 12	-33 25				434023
10960	WOOMERA*BN, AUSTR.	9003	12 07	17 10 34.03	7 20 42	-38 11				434023
10962	VILLA DOLORES*BN, ARG	9011	12 08	6 07 48.97	7 00 18	-34 48				434023
10961	WOOMERA*BN, AUSTR.	9003	12 08	16 59 38.34	8 00 48	-48 47				434023
10963	WOOMERA*BN, AUSTR.	9003	12 09	16 46 35.64	7 03 30	-39 22				434023
30195	PUEBLA, MEX.	0900	12 10	0 53 17.2	23 58 00	-1 23				645013
30196	PUEBLA, MEX.	0900	12 10	0 53 26.3	0 22 48	-4 51				645013
10969	MAUI*BN, HAWAII	9012	12 11	5 02 37.51	21 51 00	-31 21				434023
10964	WOOMERA*BN, AUSTR.	9003	12 11	16 22 57.95	6 58 30	-40 34				434023
10965	WOOMERA*BN, AUSTR.	9003	12 11	18 44 08.15	6 54 18	-26 22				434023
10966	OLIFANTSFNTN*BN, S.AF	9002	12 11	22 48 44.52	5 35 48	-54 54				434023
10968	VILLA DOLORES*BN, ARG	9011	12 12	5 20 11.63	6 28 42	-37 15				434023
10967	WOOMERA*BN, AUSTR.	9003	12 12	18 32 19.63	6 55 36	-24 32				434023
10970	AREQUIPA*BN, PERU	9007	12 13	5 05 42.46	4 00 06	-76 14				434023
10971	AREQUIPA*BN, PERU	9007	12 13	7 28 05.51	9 24 06	-60 46				434023
10972	OLIFANTSFNTN*BN, S.AF	9002	12 13	22 25 34.49	5 47 06	-58 56				434023
10973	OLIFANTSFNTN*BN, S.AF	9002	12 14	0 46 21.91	6 35 00	-44 00				434023
10975	VILLA DOLORES*BN, ARG	9011	12 14	7 10 18.45	5 59 54	-24 34				434023
10976	VILLA DOLORES*BN, ARG	9011	12 14	7 26 13.38	11 44 42	-2 37				434013
10974	CURACAO*BN, N.W.I.	9009	12 14	9 49 29.27	13 00 18	-34 17				434023
10980	WOOMERA*BN, AUSTR.	9003	12 14	15 47 19.17	6 45 24	-42 21				434023
10979	WOOMERA*BN, AUSTR.	9003	12 14	18 07 53.49	6 39 24	-22 34				434013
10977	OLIFANTSFNTN*BN, S.AF	9002	12 14	22 13 29.05	4 53 24	-60 31				434023
10978	OLIFANTSFNTN*BN, S.AF	9002	12 15	0 33 44.74	7 53 48	-45 32				434023
10981	VILLA DOLORES*BN, ARG	9011	12 15	4 45 46.54	7 12 48	-38 10				434023
10982	WOOMERA*BN, AUSTR.	9003	12 15	15 35 32.53	6 17 00	-42 56				434023
10983	WOOMERA*BN, AUSTR.	9003	12 15	17 56 57.62	6 56 48	-18 00				434013
10996	VILLA DOLORES*BN, ARG	9011	12 16	4 31 52.52	4 05 36	-36 49				434023
10997	VILLA DOLORES*BN, ARG	9011	12 16	4 36 42.52	9 19 36	-28 11				434023
10984	AREQUIPA*BN, PERU	9007	12 16	9 14 39.09	9 58 42	-21 49				434013
10989	WOOMERA*BN, AUSTR.	9003	12 16	15 23 46.23	6 07 00	-43 27				434023
10988	WOOMERA*BN, AUSTR.	9003	12 16	17 44 09.92	6 21 00	-18 37				434013
10998	VILLA DOLORES*BN, ARG	9011	12 17	6 41 41.51	8 19 18	-19 20				434013
10987	WOOMERA*BN, AUSTR.	9003	12 17	15 12 44.23	6 59 54	-42 15				434023
10999	MAUI*BN, HAWAII	9012	12 17	15 48 52.01	13 03 30	-24 17				434023
10986	WOOMERA*BN, AUSTR.	9003	12 17	17 33 46.59	9 07 18	-11 40				434013
10990	AREQUIPA*BN, PERU	9007	12 18	1 48 05.03	22 04 54	-48 25				434023
10991	AREQUIPA*BN, PERU	9007	12 18	8 51 05.32	9 59 06	-16 34				434013
10995	CURACAO*BN, N.W.I.	9009	12 18	8 59 57.41	12 24 18	-31 13				434023
10985	OLIFANTSFNTN*BN, S.AF	9002	12 18	23 46 06.10	7 11 42	-44 50				434023
10992	AREQUIPA*BN, PERU	9007	12 19	1 37 25.83	22 24 30	-67 03				434023
11000	VILLA DOLORES*BN, ARG	9011	12 19	6 15 25.74	5 59 24	-22 29				434013
10993	AREQUIPA*BN, PERU	9007	12 19	6 16 46.03	9 11 36	-61 35				434023
11001	VILLA DOLORES*BN, ARG	9011	12 19	6 19 43.29	9 10 12	-9 04				434013
10994	AREQUIPA*BN, PERU	9007	12 19	8 38 44.48	9 43 00	-14 29				434013
11002	WOOMERA*BN, AUSTR.	9003	12 19	14 49 46.56	7 27 48	-39 59				434023
11003	WOOMERA*BN, AUSTR.	9003	12 19	17 08 00.57	7 36 18	-13 50				434013
11012	VILLA DOLORES*BN, ARG	9011	12 20	1 29 03.08	4 02 36	-6 04				434013
11013	VILLA DOLORES*BN, ARG	9011	12 20	6 04 25.21	6 31 54	-18 51				434013
11005	AREQUIPA*BN, PERU	9007	12 20	6 04 59.14	9 10 36	-61 36				434023
11014	VILLA DOLORES*BN, ARG	9011	12 20	6 08 27.57	9 22 06	-4 39				434013
11006	AREQUIPA*BN, PERU	9007	12 20	8 23 59.36	8 13 12	-23 10				434023
11004	CURACAO*BN, N.W.I.	9009	12 20	8 33 37.64	11 41 00	-35 30				434023
11009	JUPITER*BN, FLA.	9010	12 20	10 55 29.25	12 24 42	-21 01				434013
11010	JUPITER*BN, FLA.	9010	12 20	10 58 05.58	13 00 36	-14 46				434013
11011	JUPITER*BN, FLA.	9010	12 20	11 01 59.30	13 53 12	-5 50				434013
11016	MAUI*BN, HAWAII	9012	12 20	15 17 37.82	13 51 48	-6 05				434013
11017	VILLA DOLORES*BN, ARG	9011	12 21	5 53 14.56	6 55 18	-14 42				434013
11008	AREQUIPA*BN, PERU	9007	12 21	8 12 44.38	8 25 42	-18 24				434013
11007	CURACAO*BN, N.W.I.	9009	12 21	8 22 28.18	11 49 54	-31 18				434023
11021	ORGAN PASS*BN, N.M.	9001	12 21	13 00 55.54	13 31 18	-7 33				434013
11020	MAUI*BN, HAWAII	9012	12 21	14 58 54.69	12 20 12	-21 50				434013
11022	NAINI TAL*BN, INDIA	9006	12 21	23 43 15.23	12 50 12	-17 21				434013
11018	SAN FERNANDO*BN, SP.	9004	12 22	6 18 35.60	13 04 42	-12 08				434013

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11019	CURACAO*BN, N.W.I.	9009	12 22	8 10 39.35	11 47 48	-29 09				434023
11025	MAUI*BN, HAWAII	9012	12 22	14 46 42.56	12 15 36	-20 26				434013
11023	WOOMERA*BN, AUSTR.	9003	12 22	16 32 20.44	7 08 30	-5 39				434013
11026	OLIFANTS*BN,S.AF	9002	12 22	18 23 06.93	1 00 30	-48 15				434023
11027	OLIFANTS*BN,S.AF	9002	12 23	1 18 23.22	7 30 54	5 35				434013
11034	SHIRAZ*BN, IRAN	9008	12 23	1 43 54.95	12 58 30	-9 52				434013
11024	SAN FERNANDO*BN, SP.	9004	12 23	6 10 17.70	15 53 54	-3 07				434013
11036	JUPITER*BN, FLA.	9010	12 23	10 19 16.73	12 12 24	-15 48				434013
11037	JUPITER*BN, FLA.	9010	12 23	10 21 50.47	12 46 42	-5 00				434013
11030	MAUI*BN, HAWAII	9012	12 23	14 33 50.78	11 59 12	-21 20				434013
11038	VILLA DOLORES*BN,ARG	9011	12 24	0 44 06.66	5 56 48	-18 18				434013
11045	OLIFANTS*BN,S.AF	9002	12 24	1 07 02.71	7 36 36	10 50				434013
11031	SAN FERNANDO*BN, SP.	9004	12 24	5 57 31.20	15 41 54	-2 45				434013
11040	VILLA DOLORES*BN,ARG	9011	12 24	7 37 21.69	7 52 54	22 12				434013
11033	AREQUIPA*BN, PERU	9007	12 24	7 38 03.64	8 31 24	-5 27				434013
11042	MAUI*BN, HAWAII	9012	12 24	14 21 50.99	11 55 00	-19 40				434013
11041	VILLA DOLORES*BN,ARG	9011	12 26	0 20 17.65	5 55 36	-21 29				434013
11032	TOKYO*BN, JAPAN	9005	12 26	20 42 31.20	12 37 30	5 29				434013
11049	SHIRAZ*BN, IRAN	9008	12 27	0 52 23.68	11 54 36	-11 46				434013
11043	WOOMERA*BN, AUSTR.	9003	12 27	10 58 34.00	1 05 00	-40 39				434023
11050	SHIRAZ*BN, IRAN	9008	12 28	0 41 19.40	12 10 42	-7 30				434013
11047	SAN FERNANDO*BN, SP.	9004	12 28	5 04 26.00	12 20 42	-6 47				434013
11044	CURACAO*BN, N.W.I.	9009	12 28	6 59 12.93	11 23 24	-18 48				434013
30198	N. CANTON, OHIO	8559	12 28	11 41 48.00	12 37 55	4 14				845014
11054	MAINI TAL*BN, INDIA	9006	12 29	0 38 04.40	12 04 24	17 22				434013
11051	JUPITER*BN, FLA.	9010	12 29	9 04 03.86	10 52 00	-16 22				434013
11056	CURACAO*BN, N.W.I.	9009	12 29	9 05 01.52	9 42 54	14 51				434013
11052	JUPITER*BN, FLA.	9010	12 29	9 07 36.22	11 58 48	-4 27				434013
11053	JUPITER*BN, FLA.	9010	12 29	9 14 19.46	15 47 24	11 40				434013
11055	MAUI*BN, HAWAII	9012	12 29	15 45 25.04	12 24 48	31 10				434013
11061	TOKYO*BN, JAPAN	9005	12 29	20 04 56.80	12 02 24	4 39				434013
11057	SAN FERNANDO*BN, SP.	9004	12 30	4 40 24.10	12 16 18	-4 05				434013
11060	CURACAO*BN, N.W.I.	9009	12 30	8 54 53.16	10 20 48	24 44				434013
11062	TOKYO*BN, JAPAN	9005	12 30	19 56 17.60	13 11 30	13 26				434013
11058	SHIRAZ*BN, IRAN	9008	12 31	0 03 52.73	11 31 12	-7 31				434013
11059	SHIRAZ*BN, IRAN	9008	12 31	2 27 32.13	12 45 30	18 11				434013
30199	CINCINNATI, OHIO	0050	12 31	11 05 07.2	12 50 48	9 14				845004
11063	TOKYO*BN, JAPAN	9005	12 31	19 42 01.70	12 28 36	10 45				434013
11064	SHIRAZ*BN, IRAN	9008	12 31	23 51 56.00	11 28 06	-7 56				434013

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OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10801	AREQUIPA*BN, PERU	9007	7 01	7 21 26.60	22 50 24	-41 06				434023
10802	AREQUIPA*BN, PERU	9007	7 01	9 43 17.91	22 57 42	-7 55				434013
10800	OLIFANTS*BN,S.AF	9002	7 27	17 28 44.67	14 44 06	-34 56				434023
10210	OLIFANTS*BN,S.AF	9002	7 30	16 57 16.60	14 06 30	-28 05				434023
10211	OLIFANTS*BN,S.AF	9002	7 30	19 17 19.60	15 42 30	18 41				434013
10803	CURACAO*BN, N.W.I.	9009	7 31	6 49 23.00	22 10 48	57 02				434013
50001	AIKEN, S.C.	6023	8 28	1 34 16.7	18 52 21	32 44				634042
50002	AIKEN, S.C.	6023	8 29	1 23 31.8	18 25 38	32 24				634042
10804	WOOMERA*BN, AUSTR.	9003	8 31	19 24 00.85	5 14 48	-25 12				434023

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OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
01826	VILLA DOLORES*BN,ARG	9011	6 30	7 31 43.14	21 45 42	-17 20				434013
10132	MAINI TAL*BN, INDIA	9006	7 21	19 15 30.47	23 21 24	-8 20				434013
10372	JUPITER*BN, FLA.	9010	8 18	1 02 20.09	17 49 42	19 49				434013
10416	SHIRAZ*BN, IRAN	9008	8 21	18 00 45.95	19 29 48	43 56				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	OECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
30119	N. CANTON, OHIO	8584	9 01	1 17 15.5	18 24 36	17 41				845033
30120	WICHITA, KAN.	0028	9 01	3 00 59.3	7 12 37	88 25				845043
10140	CURACAO*BN, N.W.I.	9009	9 01	8 30 14.57	4 20 54	36 50				434013
10141	MAUI*BN, HAWAII	9012	9 01	15 16 04.86	0 02 18	-25 38				434023
10138	SAN FERNANDO*BN, SP.	9004	9 01	21 35 28.40	11 39 12	62 18				434013
30121	MAISON, WISC.	0148	9 02	2 39 59.05	1 20 00	64 30				845042
10143	SAN FERNANDO*BN, SP.	9004	9 02	21 11 54.20	11 24 06	62 36				434013
30122	ROCHESTER, N.Y.	8564	9 03	2 17 28.4	12 30	79 39				845033
10142	OLIFANTSFNTN*BN,S.AF	9002	9 03	2 51 59.70	6 29 42	19 14				434013
10148	CURACAO*BN, N.W.I.	9009	9 03	9 30 45.36	0 31 00	-49 10				434023
10144	SAN FERNANDO*BN, SP.	9004	9 03	20 48 34.80	10 38 30	66 24				434013
10147	AREQUIPA*BN, PERU	9007	9 04	9 11 18.91	4 52 42	9 42				434013
10149	VILLA DOLORES*BN, ARG	9011	9 04	9 14 30.36	4 58 00	25 58				434013
10145	SAN FERNANDO*BN, SP.	9004	9 04	20 25 19.60	9 28 18	70 32				434013
30123	DENVER, COLO.	8582	9 05	3 11 53.0			343 15 00	27 15 00		845033
10150	VILLA DOLORES*BN, ARG	9011	9 05	8 51 09.62	5 01 24	24 06				434013
50084	BLAGOVESTCHENSK, USSR	1010	9 05	11 37 43.2	19 37 00	30 18				845009
50085	BLAGOVESTCHENSK, USSR	1010	9 05	11 38 51.0	24 42 00	29 42				845009
10146	SAN FERNANDO*BN, SP.	9004	9 05	20 01 02.80	10 55 36	61 48				434013
30124	ROCHESTER, N.Y.	8564	9 06	1 06 41.8	12 53 00	78 59				845033
30125	DENVER, COLO.	8582	9 06	2 48 01.0			342 30	28 15 00		845033
10151	VILLA DOLORES*BN, ARG	9011	9 06	8 27 55.28	5 17 54	17 58				434013
30126	ROCHESTER, N.Y.	8564	9 07	0 43 26.9	7 42	88 43				845034
10152	VILLA DOLORES*BN, ARG	9011	9 07	8 04 31.38	5 17 06	17 35				434013
50052	DNEPROPETROVSK, USSR	1017	9 07	17 37 43.4	22 02 30	61 06				845009
50054	STALINGRAD, USSR	1048	9 07	17 38 42.7	20 40 00	69 00				845009
50055	STALINGRAD, USSR	1048	9 07	17 38 47.0	20 33 00	68 48				845009
50053	DNEPROPETROVSK, USSR	1017	9 07	17 38 52.3	0 35 00	35 00				845009
50237	POTSDAM, GER.	2729	9 07	19 18 49.0	19 12 00	26 13				834049
50087	BRATISLAVA*P, CZECH.	5702	9 07	19 19 25.3	18 21 58	72 42				634042
50238	POTSDAM, GER.	2729	9 07	19 20 00.1	22 17 12	23 24				834049
50088	BRATISLAVA, CZECH.	5702	9 07	19 20 31.5	0 22 23	52 46				634042
10153	WOOLHERA*BN, AUSTR.	9003	9 07	19 56 48.62	2 28 12	-37 59				434023
10154	VILLA DOLORES*BN, ARG	9011	9 08	7 41 30.79	5 26 18	13 48				434013
10155	VILLA DOLORES*BN, ARG	9011	9 08	9 27 29.03	2 23 18	-51 58				434023
50112	DNEPROPETROVSK, USSR	1017	9 08	17 14 02.3	22 06 30	59 00				845009
50239	POTSDAM, GER.	2729	9 08	18 55 18.2	19 07 30	26 08				834049
50089	BRATISLAVA, CZECH.	5702	9 08	18 55 49.5	17 42 51	72 10				634042
50240	POTSDAM, GER.	2729	9 08	18 56 19.7	21 52 00	23 14				834049
50241	POTSDAM, GER.	2729	9 08	18 57 19.9	23 18 36	16 22				834049
50090	BRATISLAVA*P, CZECH.	5702	9 08	18 57 32.0	0 38 09	40 12				634042
50049	LAREDO*RADAR, TEX.	4012	9 08	22 02 10.5			167 24	33 18	1.80	845037
50091	BRATISLAVA*P, CZECH.	5702	9 09	18 32 19.0	18 21 58	72 32				634042
50107	TCHERNOVITSY, USSR	1062	9 09	18 33 08.4	20 27 30	70 18				845009
50392	BRATISLAVA*P, CZECH.	5702	9 09	18 33 25.2	23 39 30	52 12				634042
50050	LAREDO*RADAR, TEX.	4012	9 09	21 38 36.0			164 54 00	34 06 00	1.237	845037
50110	BLAGOVESTCHENSK, USSR	1010	9 10	11 26 47.1	23 17 00	31 00				845009
50111	BLAGOVESTCHENSK, USSR	1010	9 10	11 27 25.7	23 55 00	22 30				845009
50102	KIEV, USSR	1070	9 10	18 10 40.7	17 37 24	37 06				845009
50103	KIEV, USSR	1070	9 10	18 10 43.2	17 45 48	37 30				845009
50104	KIEV, USSR	1023	9 10	18 11 07.3	19 33 42	47 54				845009
50108	TCHERNOVITSY, USSR	1062	9 10	18 11 13.8	18 02 00	72 48				845009
50105	KHARKOV, USSR	1060	9 10	18 12 07.6	19 54 06	46 30				845009
50099	DNEPROPETROVSK, USSR	1017	9 10	18 12 09.5	21 17	62 00				845009
50100	DNEPROPETROVSK, USSR	1017	9 10	18 12 16.1	21 49	59 36				845009
50106	KHARKOV, USSR	1060	9 10	18 12 28.4	21 15 00	42 30				845009
50101	DNEPROPETROVSK, USSR	1017	9 10	18 12 29.9	22 39	53 54				845009
50109	TCHERNOVITSY, USSR	1062	9 10	18 13 13.3	0 27 30	32 30				845009
10157	WOOLHERA*BN, AUSTR.	9003	9 10	18 46 14.15	2 30 06	-42 09				434023
50051	LAREDO*RADAR, TEX.	4012	9 10	23 01 00.5			197 48	23 34	1.333	845037
30127	ST. LOUIS, MO.	0140	9 11	2 38 17.9	7 54 30	70 00				845034
10156	OLIFANTSFNTN*BN,S.AF	9002	9 11	3 15 12.50	21 58 00	-50 07				434023
30128	SACRAMENTO, CAL.	8517	9 11	4 18 30.6			0 00	17 06		641304
50242	POTSDAM, GER.	2729	9 11	19 29 14.3	17 16 12	21 59				834049
50243	POTSDAM, GER.	2729	9 11	19 30 15.2	19 57 24	19 26				834049
50244	POTSDAM, GER.	2729	9 11	19 31 14.2	22 02 48	10 02				834049
30129	ST. LOUIS, MO.	0140	9 12	2 14 44.7	7 34 30	69 58				845032
10158	OLIFANTSFNTN*BN,S.AF	9002	9 12	2 51 24.20	21 43 06	-59 20				434023
30131	SACRAMENTO, CAL.	8517	9 12	3 54 54.1			0 00	17 06		641304
50086	SPOKANE, WASH.	8142	9 12	3 55 41.3			0	63 16 14		845032
50245	POTSDAM, GER.	2729	9 12	19 05 56.9	17 43 06	23 10				834049
50246	POTSDAM, GER.	2729	9 12	19 06 49.8	20 08 36	19 02				834049
50247	POTSDAM, GER.	2729	9 12	19 07 25.5	21 24 34	13 28				834049
30132	SACRAMENTO, CAL.	8517	9 13	3 31 17.7			0 00	17 07		641304
50093	BRATISLAVA*P, CZECH.	5702	9 13	18 43 40.1	19 17 24	60 02				634042
50094	BRATISLAVA*P, CZECH.	5702	9 13	18 45 22.3	23 28 36	22 28				634042
30130	ST. LOUIS, MO.	0140	9 14	1 27 30.5	6 52 42	69 42				845032
50095	BRATISLAVA*P, CZECH.	5702	9 14	18 20 08.7	19 32 30	59 24				634042
50113	UJGOROD, USSR	1055	9 14	18 21 10.6	19 55 00	42 00				845009
30151	DAYTON, OHIO	8557	9 15	1 05 37.6			14 12	24 08		845033



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30133	N. CANTON, OHIO	8565	9 15	1 06 07.0	3 20 30	73 04				845042
30134	ROCHESTER, N.Y.	8564	9 15	1 06 17.4	20 22 36	87 42				845043
30135	ROCHESTER, N.Y.	8564	9 15	1 06 24.3	22 27 42	84 42				845043
30136	ROCHESTER, N.Y.	8564	9 15	1 06 38.4	23 24 42	76 46				845044
30139	SACRAMENTO, CAL.	8517	9 15	4 30 05.3			0 00	30 28		641304
30137	DENVER, COLO.	8582	9 16	2 24 13.75			17 48	27 12		845303
30140	SACRAMENTO, CAL.	8517	9 16	4 06 26.5			0 00	30 02		641304
50057	BLAGOVESHCHENSK, USSR	1010	9 16	10 49 49.7	18 54 00	27 48				845009
50058	BLAGOVESHCHENSK, USSR	1010	9 16	10 51 46.1	22 28 00	-0 06				845009
50062	KIEV, USSR	1023	9 16	17 34 57.6	18 23 12	14 48				845009
50056	ODESSA, USSR	1036	9 16	17 35 22.2	18 24 24	47 24				845009
50060	DNEPROPETROVSK, USSR	1017	9 16	17 35 44.2	18 06 00	20 48				845009
50063	KIEV, USSR	1023	9 16	17 35 45.1	19 47 30	9 42				845009
50061	DNEPROPETROVSK, USSR	1017	9 16	17 36 56.7	20 23 12	4 12				845009
50059	KRASNODAR, USSR	1027	9 16	17 45 14.6	19 04	-16 30				845009
30143	ROCHESTER, N.Y.	8564	9 17	0 19 12.6	23 55 30	62 37				845043
30141	SACRAMENTO, CAL.	8517	9 17	3 42 47.2			0 00	29 06		641304
30142	SACRAMENTO, CAL.	8517	9 18	3 19 07.4			0 00	28 31		641304
30138	DENVER, COLO.	8582	9 18	3 21 23.4			298 24	51 00		845303
50066	DNEPROPETROVSK, USSR	1017	9 18	16 48 44.4	18 21 30	21 42				845009
50067	DNEPROPETROVSK, USSR	1017	9 18	16 50 05.2	21 01 30	2 48				845009
50064	EREVAN, USSR	1018	9 18	16 51 21.5	20 39 48	54 06				845009
50065	EREVAN, USSR	1018	9 18	16 51 42.4	21 37 42	43 06				845009
10159	SAN FERNANDO BN, SP.	9004	9 18	20 14 09.60	23 13 42	70 34				434013
30144	TERRE HAUTE, IND.	8127	9 19	1 16 09.4			0 30	48 23		845303
30158	MITAKA, JAPAN	0229	9 19	9 42 06.7			25 06	25 12		845303
10161	TOKYO BN, JAPAN	9005	9 19	9 43 15.60	1 46 18	62 41				434013
10160	SAN FERNANDO BN, SP.	9004	9 19	19 50 57.20	23 33 54	56 36				434013
30145	DENVER, COLO.	8582	9 20	2 35 27.0			43 45 00	87 30		845303
50071	EREVAN, USSR	1018	9 20	16 04 06.6	20 44 00	57 24				845009
50072	EREVAN, USSR	1018	9 20	16 04 10.4	20 51 24	55 18				845009
10162	SAN FERNANDO BN, SP.	9004	9 20	19 27 18.10	23 29 00	57 01				434013
30147	DENVER, COLO.	8582	9 21	2 12 00.0			37 42	82 24		845303
50068	LAREDO RADAR, TEX.	4012	9 21	3 39 27.0			256 06 00	20 48 00	1280	845307
10163	NAINI TAL BN, INDIA	9006	9 21	14 02 39.73	0 23 30	56 17				434013
50070	KRYM, USSR	1028	9 21	17 23 49.2	17 58 48	-13 24				845009
30148	ROCHESTER, N.Y.	8564	9 22	0 07 30.7	19 11 12	6 00				845043
30149	ROCHESTER, N.Y.	8564	9 22	0 08 05.2	20 08 36	-3 15				845043
30150	ROCHESTER, N.Y.	8564	9 22	0 08 36.7	20 47 00	-9 33				845043
30152	DENVER, COLO.	8582	9 22	1 48 16.0			35 54	79 24		845303
30153	CHINA LAKE, CAL.	0098	9 22	3 32 24.2			220 59 24	63 03 00		641303
50069	LAREDO RADAR, TEX.	4012	9 22	3 35 48.0			257 18 00	22 12 00	1218	845307
30166	MITAKA, JAPAN	0229	9 22	10 17 05.7			219 24	64 12		845303
10169	TOKYO BN, JAPAN	9005	9 22	10 17 29.10	19 19 12	4 58				434013
10164	NAINI TAL BN, INDIA	9006	9 22	13 38 43.36	0 25 36	63 02				434013
10165	NAINI TAL BN, INDIA	9006	9 22	13 39 45.14	0 05 00	38 09				434013
50076	ACHKHABAD, USSR	1006	9 22	15 13 16.2	14 10 30	42 12				845009
50077	ACHKHABAD, USSR	1006	9 22	15 19 47.5	19 03 00	13 48				845009
50073	LAREDO RADAR, TEX.	4012	9 22	18 16 21.5			263 42	52 06	1104	845307
50074	LAREDO RADAR, TEX.	4012	9 23	1 26 21.0			0 48 00	22 30 00	1241	845307
50078	ACHKHABAD, USSR	1006	9 23	14 56 08.8	19 00 42	17 36				845009
10166	SAN FERNANDO BN, SP.	9004	9 23	20 01 53.90	17 28 36	-13 55				434013
50075	LAREDO RADAR, TEX.	4012	9 24	2 48 27.0			260 06 00	25 18 00	1122	845307
10172	JUPITER BN, FLA.	9010	9 25	0 43 52.64	18 25 30	8 00				434013
10171	JUPITER BN, FLA.	9010	9 25	0 44 04.29	18 48 48	2 23				434013
10170	JUPITER BN, FLA.	9010	9 25	0 44 26.40	19 29 30	-7 22				434013
30154	DENVER, COLO.	8582	9 25	2 22 37.8			226 24	18 06		845303
10175	SHIRAZ BN, IRAN	9008	9 25	15 55 30.94	16 29 24	-29 09				434013
10167	SAN FERNANDO BN, SP.	9004	9 25	19 14 19.90	16 42 42	-6 30				434013
10168	SAN FERNANDO BN, SP.	9004	9 25	19 14 49.90	17 27 42	-14 44				434013
10173	WOOMERA BN, AUSTR.	9003	9 26	19 33 59.94	18 29 00	-84 06				434023
10174	WOOMERA BN, AUSTR.	9003	9 26	19 36 20.44	10 21 48	-62 41				434023
10176	CURACAO BN, N.W.I.	9009	9 27	0 00 16.72	17 32 06	46 10				434013
10177	CURACAO BN, N.W.I.	9009	9 27	0 00 42.02	18 39 54	35 35				434013
10178	VILLA DOLORES BN, ARG	9011	9 27	9 05 27.34	9 17 30	-74 34				434023
10179	VILLA DOLORES BN, ARG	9011	9 27	9 08 18.08	9 44 42	-32 03				434023
50079	LAREDO RADAR, TEX.	4012	9 27	16 16 56.3			232 24 00	59 36 00	1112	845307
10180	WOOMERA BN, AUSTR.	9003	9 27	19 12 05.29	10 24 48	-68 17				434023
10181	WOOMERA BN, AUSTR.	9003	9 27	19 13 27.12	10 03 12	-49 53				434023
10182	VILLA DOLORES BN, ARG	9011	9 28	8 41 53.01	9 20 06	-65 30				434023
50080	LAREDO RADAR, TEX.	4012	9 28	15 53 31.5			225 30 00	60 00 00	1123	845307
10183	WOOMERA BN, AUSTR.	9003	9 28	18 46 32.45	15 55 00	-83 15				434023
10184	WOOMERA BN, AUSTR.	9003	9 28	18 48 16.85	10 18 00	-67 42				434023
10186	VILLA DOLORES BN, ARG	9011	9 29	8 15 29.22	22 18 00	-75 10				434023
10187	VILLA DOLORES BN, ARG	9011	9 29	8 20 37.97	9 20 00	-33 15				434023
10185	WOOMERA BN, AUSTR.	9003	9 29	18 24 20.54	10 16 24	-68 49				434023
10188	VILLA DOLORES BN, ARG	9011	9 30	7 53 44.58	9 40 06	-77 40				434023
10189	WOOMERA BN, AUSTR.	9003	9 30	18 00 10.86	10 32 30	-72 28				434023
50081	LAREDO RADAR, TEX.	4012	10 01	0 02 37.5			278 36	39 42	880	845307

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10192	OLIFANTSFTN'BN,S.AF	9002	10 02	2 07 33.20	7 21 18	-62 57				434023
10191	VILLA OLORES'BN,ARG	9011	10 02	7 07 57.43	7 47 30	-49 55				434023
10190	WOOMERA'BN, AUSTR.	9003	10 02	18 59 36.69	4 38 42	-37 03				434023
10193	OLIFANTSFTN'BN,S.AF	9002	10 03	1 43 54.30	7 31 18	-60 26				434023
50082	LAREDO'RAOAR, TEX.	4012	10 03	22 51 28			292 54	46 00	834	895307
10195	VILLA OLORES'BN,ARG	9011	10 04	8 05 40.37	5 46 00	-24 31				434023
10194	WOOMERA'BN, AUSTR.	9003	10 04	18 11 54.85	4 22 30	-42 46				434023
10196	WOOMERA'BN, AUSTR.	9003	10 06	10 15 12.92	17 17 48	-55 36				434023
10197	CURACAO'BN, N.W.I.	9009	10 07	9 50 07.55	8 21 24	-23 06				434023
10198	SAN FERNANDO'BN, SP.	9004	10 08	5 12 25.40	9 24 30	-13 38				434013
10199	NAINI TAL'BN, INOIA	9006	10 08	23 45 23.46	18 56 00	6 15				434013
10200	CURACAO'BN, N.W.I.	9009	10 09	8 01 22.60	7 28 54	-35 43				434023
10201	SHIRAZ'BN, IRAN	9008	10 10	1 00 48.91	7 29 48	-15 55				434013
10202	CURACAO'BN, N.W.I.	9009	10 10	9 24 37.62	5 31 36	34 12				434013
10203	JUPITER'BN, FLA.	9010	10 10	9 26 37.74	8 24 12	-5 58				434013
10205	MAUI'BN, HAWAII	9012	10 10	14 28 37.19	17 34 36	0 24				434013
10208	SHIRAZ'BN, IRAN	9008	10 11	0 37 59.42	8 02 48	-6 11				434013
10204	CURACAO'BN, N.W.I.	9009	10 11	9 00 58.68	3 34 48	37 03				434013
10206	JUPITER'BN, FLA.	9010	10 11	9 02 17.19	7 52 36	-11 48				434013
30159	OENVER, COLO.	8582	10 11	12 31 51.0			141 30	68 06		845303
10213	MAUI'BN, HAWAII	9012	10 11	14 04 41.12	7 20 36	-2 24				434013
10226	SHIRAZ'BN, IRAN	9008	10 12	0 13 56.14	7 42 24	-9 09				434013
10207	SAN FERNANDO'BN, SP.	9004	10 12	5 22 27.60	7 29 42	20 30				434013
10210	JUPITER'BN, FLA.	9010	10 12	8 37 30.26	7 06 18	-21 29				434013
10211	JUPITER'BN, FLA.	9010	10 12	10 24 18.58	4 05 54	46 05				434013
10212	SHIRAZ'BN, IRAN	9008	10 12	23 50 10.79	7 33 54	-8 55				434013
10215	JUPITER'BN, FLA.	9010	10 13	10 00 47.12	4 23 12	51 20				434013
30160	OENVER, COLO.	8582	10 13	11 44 27.0			140 24	63 00		845303
10474	MAUI'BN, HAWAII	9012	10 13	15 02 48.50	2 16 24	49 52				434013
10221	TOKYO'BN, JAPAN	9005	10 13	18 25 46.50	7 18 48	-2 10				434013
10214	NAINI TAL'BN, INOIA	9006	10 13	23 30 48.59	3 23 00	44 29				434013
10216	SHIRAZ'BN, IRAN	9008	10 14	1 12 21.36	4 11 30	52 19				434013
10232	SAN FERNANDO'BN, SP.	9004	10 14	4 34 52.00	7 19 54	18 41				434013
30161	N. CANTON, OHIO	8555	10 14	9 37 30.9	5 51 55	-7 32				845303
30162	CHINA LAKE, CAL.	0098	10 14	13 03 31.8			328 06	58 49 48		845303
10231	MAUI'BN, HAWAII	9012	10 14	14 39 25.20	2 30 48	57 38				434013
10224	NAINI TAL'BN, INOIA	9006	10 14	23 06 39.24	3 07 30	39 30				434013
10228	SHIRAZ'BN, IRAN	9008	10 15	0 48 19.94	4 01 06	49 24				434013
10217	SAN FERNANDO'BN, SP.	9004	10 15	4 10 59.10	7 09 00	17 00				434013
10230	JUPITER'BN, FLA.	9010	10 15	9 12 47.03	4 06 18	43 55				434013
30171	WALNUT CREEK, CAL.	8535	10 15	12 39 02.6	5 53 15	40 41				845303
30163	CHINA LAKE, CAL.	8588	10 15	12 39 35.8			328 17 24	61 19 12		845303
10222	TOKYO'BN, JAPAN	9005	10 15	17 39 19.30	7 54 24	7 29				434013
10223	TOKYO'BN, JAPAN	9005	10 15	19 24 05.10	4 13 00	55 18				434013
30185	MITAKA, JAPAN	0229	10 15	19 24 10.1	27 06	61 42				845303
10225	NAINI TAL'BN, INOIA	9006	10 15	22 43 18.19	3 27 36	48 22				434013
10229	SHIRAZ'BN, IRAN	9008	10 16	0 24 23.29	3 59 42	47 50				434013
10218	SAN FERNANDO'BN, SP.	9004	10 16	3 46 53.40	6 44 48	13 08				434013
10219	SAN FERNANDO'BN, SP.	9004	10 16	5 33 56.00	2 59 42	64 31				434013
30164	MILWAUKEE, WISC.	0074	10 16	10 36 30.3	6 33	41 10				641044
30174	WALNUT CREEK, CAL.	8586	10 16	12 15 05.6	5 42	38 52				845304
30172	WALNUT CREEK, CAL.	8556	10 16	12 15 06.9	5 43 50	38 54				845304
30173	WALNUT CREEK, CAL.	8556	10 16	12 15 08.2	5 45 20	39 15				845304
30165	OENVER, COLO.	8582	10 16	12 19 02.4			336 15 00	54 30		845303
50096	EREVAN, USSR	1018	10 17	1 47 26.7	5 35 30	62 00				845009
50097	EREVAN, USSR	1018	10 17	1 47 30.5	5 44 06	62 54				845009
10220	SAN FERNANDO'BN, SP.	9004	10 17	5 08 44.10	2 44 06	59 57				434013
10233	JUPITER'BN, FLA.	9010	10 17	10 11 33.07	0 02 24	60 30				434013
30167	CINCINNATI, OHIO	8555	10 17	10 12 42.5			331 30	64 00		845302
30175	WALNUT CREEK, CAL.	8586	10 17	11 51 08.3	5 32 09	36 38				845304
30197	WALNUT CREEK, CAL.	8586	10 17	11 51 11.4	5 36 45	37 18				845304
30169	CHINA LAKE, CAL.	8588	10 17	11 51 38.0			326 24 00	66 07 12		845303
30168	CHINA LAKE, CAL.	0098	10 17	11 51 38.0			326 24 36	65 51 36		841303
50114	LVOV, USSR	1031	10 18	3 05 52.2	6 00 30	19 24				845009
30170	MILWAUKEE, WISC.	0074	10 18	9 48 36.2	6 06	37 13				641044
30190	MAISON, WISC.	0148	10 18	9 49 32.0	8 07 00	42 12				845042
30176	SACRAMENTO, CAL.	8517	10 18	13 15 05.0			0 00	38 43		641304
10234	TOKYO'BN, JAPAN	9005	10 18	18 13 22.20	6 13 18	64 58				434013
50115	STALINABAO, USSR	1047	10 18	23 02 22.0	7 30 00	27 30				845009
50116	STALINABAO, USSR	1047	10 18	23 02 36.2	7 43 00	28 06				845009
10235	NAINI TAL'BN, INOIA	9006	10 18	23 20 06.17	21 13 00	77 35				434013
10236	ORGAN PASS'BN, N.M.	9001	10 19	11 05 45.90	0 38 12	67 50				434013
30177	CHINA LAKE, CAL.	0098	10 19	12 50 52.7			344 00 00	29 24 00		841303
50098	LAREDO'RAOAR, TEX.	4012	10 19	16 30 19.5			4 30 00	39 30 00	1273	895307
50117	BLAGOVESTCHENSK, USSR	1010	10 19	19 33 51.5	6 00 00	19 30				845009
50118	BLAGOVESTCHENSK, USSR	1010	10 19	19 35 51.3	8 43 00	28 42				845009
10237	NAINI TAL'BN, INOIA	9006	10 19	22 54 51.28	23 04 12	67 52				434013

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30178	DENVER, COLO.	8582	10 20	10 43 05.1			333 45 00	61 24 00		845303
30179	DENVER, COLO.	8582	10 20	12 30 21.3			353 54	35 09 00		845303
10238	TOKYO*BN, JAPAN	9005	10 20	19 11 01.60	23 48 30	67 50				434013
10239	NAINI TAL*BN, INDIA	9006	10 20	22 32 14.44	20 22 12	79 22				434013
10241	SHIRAZ*BN, IRAN	9008	10 21	0 13 10.74	20 15 48	80 40				434013
30180	DENVER, COLO.	8582	10 21	10 19 01.9			332 30	63 00		845303
30191	MAOISON, WISC.	0148	10 21	10 23 39.2	7 55 00	79 00				845042
30182	CHINA LAKE, CAL.	0098	10 21	12 02 49.8			342 36	30 42 00		641303
30183	CHINA LAKE, CAL.	8588	10 21	12 02 50.8			342 56 24	31 04 48		845303
30184	SACRAMENTO, CAL.	8517	10 21	12 03 04.5			0 00	41 24		641304
10240	ORGAN PASS*BN, N.M.	9001	10 21	12 05 03.40	21 54 48	70 36				434013
30181	DENVER, COLO.	8582	10 21	12 06 17.4			353 12	35 36		845303
30199	MITAKA, JAPAN	0229	10 21	18 47 23.4			342 18	30 54		845303
10246	TOKYO*BN, JAPAN	9005	10 21	18 47 33.80	22 56 12	76 00				434013
10242	WOOMERA*BN, AUSTR.	9003	10 22	11 01 57.20	5 03 30	-72 41				434023
10244	ORGAN PASS*BN, N.M.	9001	10 22	11 43 01.20	7 11 48	73 52				434013
50119	ULJANOVSK, USSR	1071	10 23	1 22 05.6	6 41 30	25 12				845009
50120	ULJANOVSK, USSR	1071	10 23	1 23 03.0	7 10 00	19 06				845009
10243	WOOMERA*BN, AUSTR.	9003	10 23	10 39 33.88	3 34 42	-46 18				434023
10245	ORGAN PASS*BN, N.M.	9001	10 23	11 16 33.99	20 34 00	74 30				434013
30186	DENVER, COLO.	8582	10 23	11 18 13.8			351 48	36 36		845303
10248	VILLA DOLORES*BN, ARG	9011	10 24	0 09 17.32	2 54 00	-45 41				434023
50121	TCHEKNOVITSY, USSR	1062	10 24	2 27 58.0	3 17 00	46 42				845009
30187	CINCINNATI, OHIO	8555	10 24	9 12 32.7	16 32 30	87 14				845003
10247	WOOMERA*BN, AUSTR.	9003	10 24	10 14 36.70	4 11 18	-64 16				434023
30188	DENVER, COLO.	8582	10 24	10 54 40.5			0 00	36 24		845303
30192	MAOISON, WISC.	0148	10 24	10 58 06.4	10 16 00	84 24	0 00	17 18		845042
30200	YATSUSHIRO, JAPAN	0272	10 24	19 19 28						845302
10249	VILLA DOLORES*BN, ARG	9011	10 24	23 45 39.36	2 44 06	-41 15				434023
30193	MAOISON, WISC.	0148	10 25	10 33 45.4	5 08 00	84 06				845042
10250	WOOMERA*BN, AUSTR.	9003	10 25	11 35 28.13	19 00 42	-28 41				434023
30189	ROCHESTER, N.Y.	8564	10 26	10 12 28.2	8 37 36	80 07				845034
10252	WOOMERA*BN, AUSTR.	9003	10 26	11 13 06.95	21 19 30	-9 07				434013
10251	ORGAN PASS*BN, N.M.	9001	10 26	11 52 49.20	19 57 00	75 39				434013
10255	OLIFANTSFNTN*BN, S.AF	9002	10 26	17 57 07.00	0 03 36	-63 53				434023
50123	ULJANOVSK, USSR	1071	10 27	1 39 40.3	6 06 00	24 42				845009
50124	ULJANOVSK, USSR	1071	10 27	1 46 01.2	10 16 00	16 54				845009
10253	WOOMERA*BN, AUSTR.	9003	10 27	10 49 18.03	21 17 42	-10 47				434013
10254	ORGAN PASS*BN, N.M.	9001	10 27	11 28 12.45	20 03 00	74 28				434013
10256	WOOMERA*BN, AUSTR.	9003	10 28	10 24 47.66	19 54 18	-27 16				434023
30208	AOELAIIDE, AUSTR.	0600	10 28	10 25 16.4			329 30	40 45		845303
10257	SAN FERNANDO*BN, SP.	9004	10 29	3 56 17.40	15 24 12	77 26				434013
50130	LAREDO*RADAR, TEX.	4012	10 29	5 18 06.0			216 30 00	56 42 00	1075	845307
10258	SAN FERNANDO*BN, SP.	9004	10 29	5 43 00.10	10 53 00	79 10				434013
30194	DENVER, COLO.	8582	10 29	10 41 29.8			8 51 36	36 45 00		845303
30196	N. CANTON, OHIO	8559	10 29	10 46 16.2	8 01 50	64 22				845034
30195	DENVER, COLO.	8582	10 29	12 28 37.8			29 01 48	67 12		845303
30203	ASAHIKAWA, JAPAN	0201	10 29	19 10 06	6 57	66				845002
50128	KRASNODAR, USSR	1027	10 30	1 53 09.3	3 19	58 36				845009
50125	EREVAN, USSR	1018	10 30	1 55 08.2	4 01 06	74 12				845009
50129	KRASNODAR, USSR	1027	10 30	1 55 10.7	8 26	54 18				845009
50126	EREVAN, USSR	1018	10 30	1 55 11.3	4 11 42	74 30				845009
30198	SACRAMENTO, CAL.	8517	10 30	11 59 59.1			0 00	36 01		641304
10259	NAINI TAL*BN, INDIA	9006	10 30	23 55 34.31	12 40 36	57 56				434013
50127	ROSTOV, USSR	1041	10 31	1 31 24.5	7 58 12	41 18				845009
10260	ORGAN PASS*BN, N.M.	9001	10 31	11 40 54.90	12 44 00	72 30				434013
50122	LAREDO*RADAR, TEX.	4012	10 31	13 29 03.0			281 42 00	55 06 00	1196	845307
10264	TOKYO*BN, JAPAN	9005	10 31	18 22 19.40	13 40 24	78 22				434013
10264	YATSUSHIRO, JAPAN	0272	10 31	20 07 46			0 00	36 00		845302
10265	NAINI TAL*BN, INDIA	9006	10 31	23 30 46.92	12 34 00	68 51				434013
10267	AREQUIPA*BN, PERU	9007	11 01	0 30 49.83	19 28 24	13 24				434013
30205	DENVER, COLO.	8592	11 01	11 16 29.7			27 06	62 15 00		845303
10266	NAINI TAL*BN, INDIA	9006	11 01	23 00 30.03	12 30 00	72 00				434013
30206	DENVER, COLO.	8592	11 02	10 52 26.7			26 24	59 48		845303
10268	ORGAN PASS*BN, N.M.	9001	11 02	10 53 43.70	12 04 24	60 33				434013
30207	DENVER, COLO.	8592	11 02	12 38 41.9			222 45 00	47 50		845303
10269	ORGAN PASS*BN, N.M.	9001	11 02	12 39 56.50	7 53 06	27 45				434013
50131	LAREDO*RADAR, TEX.	4012	11 02	12 41 02			291 18	58 24	1192	845307
10272	TOKYO*BN, JAPAN	9005	11 02	19 21 47.70	8 41 00	47 30				434013
10271	NAINI TAL*BN, INDIA	9006	11 02	22 43 29.55	12 04 00	58 26				434013
10270	SAN FERNANDO*BN, SP.	9004	11 03	3 44 12.00	11 02 30	59 05				434013
30201	KANSAS CITY, MO.	0036	11 03	10 30 24.0			0	77 09 00		845303
10276	MAUI*BN, HAWAII	9012	11 03	15 40 11.51	10 55 24	60 11				434013
10273	NAINI TAL*BN, INDIA	9006	11 03	22 16 34.59	11 28 00	67 46				434013
10309	NAINI TAL*BN, INDIA	9006	11 04	0 02 03.35	7 28 30	20 57				434013
10287	SHIRAZ*BN, IRAN	9008	11 04	1 46 35.18	7 40 18	24 09				434013
10274	JUPITER*BN, FLA.	9010	11 04	10 11 47.49	8 49 30	47 26				434013
30202	W. PALM BEACH, FLA.	0016	11 04	10 12 09			43	62		845303

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10275	JUPITER*BN, FLA.	9010	11 04	10 12 12.72	9 17 42	40 02				434013
10402	MAINI TAL*BN, INOIA	9006	11 04	23 41 27.03	7 06 42	26 23				434013
10280	SHIRAZ*BN, IRAN	9008	11 05	1 22 25.85	7 23 24	28 48				434013
10298	TOKYO*BN, JAPAN	9005	11 05	18 11 15.60	9 31 42	26 28				434013
10277	TOKYO*BN, JAPAN	9005	11 05	19 55 38.60	5 37 24	- 6 18				434013
30233	MITAKA, JAPAN	0229	11 05	19 55 42.0			225 48	35 00		845303
10279	MAINI TAL*BN, INOIA	9006	11 05	23 17 29.22	7 04 24	29 07				434013
10281	CURACAO*BN, N.W.I.	9009	11 06	0 23 30.18	18 52 18	31 52				434013
10285	MAUI*BN, HAWAII	9012	11 06	5 27 14.17	23 37 42	- 9 44				434013
10283	JUPITER*BN, FLA.	9010	11 06	9 22 22.80	6 24 30	67 30				434013
10284	JUPITER*BN, FLA.	9010	11 06	9 24 20.89	9 16 18	37 17				434013
10282	CURACAO*BN, N.W.I.	9009	11 06	9 29 29.78	10 24 30	39 14				434013
10286	MAUI*BN, HAWAII	9012	11 06	14 28 52.84	10 23 30	49 14				434013
10278	TOKYO*BN, JAPAN	9005	11 06	19 31 01.70	4 59 24	- 0 17				434013
10290	MAINI TAL*BN, INOIA	9006	11 06	22 53 40.11	7 14 06	28 09				434013
10294	JUPITER*BN, FLA.	9010	11 07	0 00 10.43	23 43 42	-29 59				434023
10288	CURACAO*BN, N.W.I.	9009	11 07	0 00 19.06	19 06 00	46 02				434013
10295	JUPITER*BN, FLA.	9010	11 07	0 01 10.57	0 32 48	-17 21				434013
10292	SHIRAZ*BN, IRAN	9008	11 07	0 34 29.09	7 19 30	31 45				434013
10475	MAUI*BN, HAWAII	9012	11 07	5 03 49.71	0 07 48	- 2 10				434013
10289	CURACAO*BN, N.W.I.	9009	11 07	9 05 39.53	10 23 42	36 53				434013
30209	PUEBLA, MEX.	0900	11 07	10 42 49.5	7 57 54	63 13				845043
10296	JUPITER*BN, FLA.	9010	11 07	10 46 05.07	4 32 24	-16 46				434013
10297	JUPITER*BN, FLA.	9010	11 07	10 47 04.37	6 07 24	-25 42				434023
10291	MAINI TAL*BN, INOIA	9006	11 07	13 31 11.02	23 43 24	-19 16				434013
10299	TOKYO*BN, JAPAN	9005	11 07	19 07 54.60	5 30 06	- 7 37				434013
10293	CURACAO*BN, N.W.I.	9009	11 07	23 35 08.02	18 49 54	42 19				434013
10300	JUPITER*BN, FLA.	9010	11 07	23 36 11.48	23 32 24	-31 24				434023
10301	JUPITER*BN, FLA.	9010	11 07	23 38 39.79	1 25 42	- 0 53				434013
50132	LAREO*RAOAR, TEX.	4012	11 08	1 18 24.0			166 00 00	35 34 00	1200	845007
30210	CINCINNATI, OHIO	0050	11 08	1 20 26.6	20 49 12	-28 57				845004
10306	MAUI*BN, HAWAII	9012	11 08	6 24 06.23	18 00 12	31 00				434013
10302	JUPITER*BN, FLA.	9010	11 08	10 21 58.64	5 13 18	-14 07				434013
10303	MAINI TAL*BN, INOIA	9006	11 08	13 08 36.48	0 40 00	- 1 49				434013
10308	MAUI*BN, HAWAII	9012	11 08	13 41 58.13	10 26 30	32 38				434013
10307	MAUI*BN, HAWAII	9012	11 08	15 27 24.08	5 57 24	-17 09				434013
10304	CURACAO*BN, N.W.I.	9009	11 08	23 12 02.42	18 36 00	38 02				434013
30211	PUEBLA, MEX.	0900	11 09	0 53 53.0	21 38 00	11 25				845043
30212	CHINA LAKE, CAL.	8588	11 09	2 39 48.8			134 22 48	40 38 24		845303
10305	CURACAO*BN, N.W.I.	9009	11 09	8 17 25.07	10 02 00	40 22				434013
10331	JUPITER*BN, FLA.	9010	11 09	9 57 27.30	4 44 30	- 8 55				434013
10310	ORGAN PASS*BN, N.M.	9001	11 09	11 39 22.69	5 46 24	-28 53				434023
10312	MAINI TAL*BN, INOIA	9006	11 09	12 44 48.58	0 47 18	- 1 52				434013
10313	MAINI TAL*BN, INOIA	9006	11 09	14 28 26.88	18 44 24	31 01				434013
10316	MAUI*BN, HAWAII	9012	11 09	15 02 34.78	5 12 42	- 5 18				434013
10311	SAN FERNANDO*BN, SP.	9004	11 09	19 32 22.20	22 42 06	6 25				434013
10314	MAINI TAL*BN, INOIA	9006	11 09	23 27 40.14	4 42 30	-21 31				434013
10329	JUPITER*BN, FLA.	9010	11 10	0 32 33.60	18 19 30	3 52				434013
10330	JUPITER*BN, FLA.	9010	11 10	0 35 29.20	19 54 30	59 25				434013
10321	TOKYO*BN, JAPAN	9005	11 10	9 00 26.20	23 54 48	- 6 25				434013
10315	CURACAO*BN, N.W.I.	9009	11 10	9 39 04.82	5 03 54	-16 45				434013
10322	MAINI TAL*BN, INOIA	9006	11 10	14 05 54.02	19 12 36	59 40				434013
10326	SHIRAZ*BN, IRAN	9008	11 10	15 46 46.48	19 33 00	56 24				434013
10317	ORGAN PASS*BN, N.M.	9001	11 11	1 52 42.40	21 05 06	25 39				434013
10335	CURACAO*BN, N.W.I.	9009	11 11	9 15 16.20	5 01 48	-18 38				434013
10323	MAINI TAL*BN, INOIA	9006	11 11	13 40 59.66	18 32 30	39 47				434013
10332	JUPITER*BN, FLA.	9010	11 11	23 49 27.70	2 43 30	72 17				434013
30213	N. CANTON, OHIO	8565	11 11	23 49 40.6	23 50 27	3 02				845053
50133	ROCHESTER, N.Y.	5050	11 11	23 50 53.2	0 12 00	8 00				637057
30215	ROCHESTER, N.Y.	8564	11 11	23 50 56.0	0 13 00	8 15				845053
10318	ORGAN PASS*BN, N.M.	9001	11 12	1 29 45.47	22 56 00	43 25				434013
30218	ALBUQUERQUE, N.M.	0041	11 12	1 29 45.5	22 47 18	24 00				845053
30219	DENVER, COLO.	8582	11 12	1 30 43.2			140 50	55 50		845053
30220	DALLAS, TEX.	0129	11 12	1 31 15.4	19 47	61 24				845043
30221	CHINA LAKE, CAL.	8588	11 12	3 13 42.5			328 09 36	54 07 14		845053
10328	CURACAO*BN, N.W.I.	9009	11 12	8 51 48.92	5 14 42	-25 00				434023
10324	AREQUIPA*BN, PERU	9007	11 12	8 57 09.06	10 03 54	27 22				434013
10327	SHIRAZ*BN, IRAN	9008	11 12	14 58 46.43	19 27 42	55 48				434013
30222	FT. BELVOIR, VA.	0077	11 12	23 25 00			180	57		845053
30223	N. CANTON, OHIO	8565	11 12	23 25 28.6	23 25 42	- 1 02				845042
30217	ROCHESTER, N.Y.	8564	11 12	23 26 40.8	23 42 51	4 54				845053
30216	ROCHESTER, N.Y.	8564	11 12	23 27 17.5	1 28 00	10 03				845054
10319	ORGAN PASS*BN, N.M.	9001	11 13	1 05 12.19	21 47 00	30 30				434013
30224	DENVER, COLO.	8582	11 13	1 06 49.5			134 45 00	52 15 00		845053
30225	DAYTON, OHIO	8557	11 13	1 09 40.4			294 18	50 36		845053
10320	ORGAN PASS*BN, N.M.	9001	11 13	2 50 52.08	16 55 00	56 30				434013
10325	AREQUIPA*BN, PERU	9007	11 13	8 32 10.77	9 15 18	37 41				434013
50136	VLAOISVOSTOK, USSR	1013	11 13	9 33 08.4	22 04 30	- 1 00				845009
50137	VLAOISVOSTOK, USSR	1013	11 13	9 33 52.8	23 07 12	8 36				845009
10341	SHIRAZ*BN, IRAN	9008	11 13	14 34 42.73	19 22 24	53 59				434013
10334	SAN FERNANDO*BN, SP.	9004	11 13	19 42 58.80	16 10 06	69 14				434013
30226	FT. BELVOIR, VA.	0077	11 13	23 00 54.5			180	52 12		845053
30227	TERRE HAUTE, INO.	8127	11 14	0 46 04.8			333	66 15		845052
30228	SACRAMENTO, CAL.	8517	11 14	2 25 15.8			180 00	89 38		845054
10333	ORGAN PASS*BN, N.M.	9001	11 14	2 26 41.50	16 38 00	54 57				434013

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10336	VILLA DOLORES*8N, ARG	9011	11 14	8 11 51.17	9 16 18	38 23				434013
30229	DAYTON, OHIO	8557	11 15	0 22 33.2			331 30	61 27		845003
30230	COLUMBUS, OHIO	0051	11 15	0 23 24.3			0 00	56 12		845003
30231	CHINA LAKE, CAL.	8588	11 15	2 01 30.3			326 19 48	58 20 24		845003
30232	DENVER, COLO.	8592	11 15	2 04 42.3			335 30	45 30		845003
10337	ORGAN PASS*BN, N.M.	9001	11 15	2 04 50.60	11 43 54	81 15				434013
10338	TOKYO*8N, JAPAN	9005	11 15	8 45 32.50	18 45 54	44 56				434013
30247	HIGASHIMATSUYAMA, JAP	0210	11 15	8 45 55.6	19 26 30	52 12				845003
30248	MITAKA, JAPAN	0229	11 15	8 46 04.5			326 06	59 06		845003
10339	SAN FERNANDO*8N, SP.	9004	11 15	18 54 59.60	17 59 30	72 26				434013
30214	DENVER, COLO.	8592	11 16	1 41 20.7			0 00	48 00		845003
50138	EREVAN, USSR	1018	11 16	15 08 53.0	20 34 48	61 18				845009
50139	EREVAN, USSR	1018	11 16	15 09 36.3	23 26 36	69 42				845009
10340	SAN FERNANDO*BN, SP.	9004	11 16	18 30 45.70	17 45 18	69 00				434013
30234	COLUMBUS, OHIO	0051	11 16	23 35 12.5			0 45 00	58 54		845003
30235	N. CANTON, OHIO	8565	11 16	23 35 55.2	23 37 10	69 18				845013
30236	ROCHESTER, N.Y.	8564	11 17	23 12 22.2	21 55 48	62 16				845013
50134	ROCHESTER, N.Y.	5050	11 17	23 13 03.8	0 47	63 48				845013
30237	ROCHESTER, N.Y.	8564	11 17	23 13 06.2	0 42 36	63 10				845013
30238	ROCHESTER, N.Y.	8564	11 17	23 13 45.4	2 21 12	57 22				845014
30239	DENVER, COLO.	8592	11 18	0 53 04.8			0 00	50 30		845003
10342	OLIFANTSFTN*BN, S.AF	9002	11 18	1 36 11.83	8 20 18	-12 07				434013
10345	TOKYO*8N, JAPAN	9005	11 18	9 19 52.90	15 01 24	63 48				434013
10343	WOOMERA*8N, AUSTR.	9003	11 18	18 29 50.21	8 41 18	-17 20				434013
30245	WOOMERA, AUSTR.	0603	11 18	18 30 45.4			97 54	58 54		845006
10344	SAN FERNANDO*8N, SP.	9004	11 18	19 29 50.40	11 51 00	75 52				434013
10346	TOKYO*8N, JAPAN	9005	11 19	8 55 37.40	14 51 36	61 29				434013
30261	YATSUSHIRO, JAPAN	0272	11 19	10 41 00			0 00	12 00		845006
10348	WOOMERA*8N, AUSTR.	9003	11 19	18 05 40.62	8 27 54	-14 15				434013
50135	LAREDO*RAOAR, TEX.	4012	11 19	22 15 58			266 42	42 24	914	845007
30241	DAYTON, OHIO	8557	11 20	0 08 20.2			341 58	31 39		845003
30242	ST. LOUIS, MO.	0140	11 20	0 08 21.0	7 38 54	79 21				845012
30243	ROCHESTER, N.Y.	8564	11 20	0 10 00.8	17 05 42	79 31				845014
30249	CINCINNATI, OHIO	0050	11 21	1 28 38.5	16 17 00	53 32				845004
10347	VILLA DOLORES*BN, ARG	9011	11 21	7 11 24.34	7 49 30	-18 45				434013
50141	ORENBURGH, USSR	1063	11 21	14 57.46.5	23 34 00	39 36				845009
10349	WOOMERA*8N, AUSTR.	9003	11 21	17 17 20.66	8 01 12	-8 52				434013
30244	DAYTON, OHIO	8557	11 22	1 05 31.9			334 48	25 08		845003
10350	OLIFANTSFTN*8N, S.AF	9002	11 22	1 45 19.73	2 51 42	-49 41				434023
50144	ORENBURGH, USSR	1063	11 22	14 33 27.0	22 41 30	39 12				845009
10351	WOOMERA*8N, AUSTR.	9003	11 22	16 53 08.43	7 44 48	-6 06				434013
10355	VILLA DOLORES*BN, ARG	9011	11 23	6 22 55.85	7 16 18	-11 24				434013
10356	VILLA DOLORES*BN, ARG	9011	11 23	6 26 47.06	11 32 18	-37 12				434023
10357	VILLA DOLORES*BN, ARG	9011	11 23	8 09 16.63	2 41 12	-62 27				434023
10352	WOOMERA*8N, AUSTR.	9003	11 23	16 30 58.71	9 35 00	-23 56				434023
10353	WOOMERA*8N, AUSTR.	9003	11 23	18 15 11.56	3 04 00	-62 05				434023
30250	CINCINNATI, OHIO	0050	11 24	0 19 03	9 06 24	77 18				845004
30251	STATE COLLEGE, PA.	8594	11 24	0 19 12.1			343 06	33 18		845003
10354	WOOMERA*8N, AUSTR.	9003	11 24	17 50 52.56	2 58 42	-59 22				434023
10363	VILLA DOLORES*BN, ARG	9011	11 25	7 20 17.32	2 30 12	-52 03				434023
10364	VILLA DOLORES*BN, ARG	9011	11 25	7 23 52.41	15 07 00	-75 37				434023
10358	WOOMERA*8N, AUSTR.	9003	11 25	17 26 34.79	2 52 42	-57 00				434023
50151	BLAGOVESTCHENSK, USSR	1010	11 26	9 40 57.4	2 16 00	19 48				845009
10359	WOOMERA*8N, AUSTR.	9003	11 26	17 03 16.54	3 26 54	-71 20				434023
10362	TOKYO*8N, JAPAN	9005	11 27	9 17 50.60	6 39 18	72 27				434013
10360	WOOMERA*8N, AUSTR.	9003	11 27	16 38 07.30	2 41 30	-54 24				434023
10365	VILLA DOLORES*BN, ARG	9011	11 28	6 08 07.76	2 15 18	-57 27				434023
50152	BLAGOVESTCHENSK, USSR	1010	11 28	8 51 16.2	0 18 00	36 48				845009
50153	BLAGOVESTCHENSK, USSR	1010	11 28	8 52 48.8	1 53 00	19 12				845009
30252	DENVER, COLO.	8592	11 29	1 47 23.5			26 54	57 45 00		845003
10367	ORGAN PASS*BN, N.M.	9001	11 30	1 24 25.39	4 55 06	57 38				434013
10368	VILLA DOLORES*BN, ARG	9011	11 30	5 19 35.56	2 05 12	-54 49				434023
10374	TOKYO*8N, JAPAN	9005	11 30	9 51 14.10	22 35 42	64 14				434013
10370	MAIMI TAL*BN, INDIA	9006	11 30	13 13 37.44	5 01 12	62 14				434013
10371	WOOMERA*8N, AUSTR.	9003	11 30	15 26 36.20	3 57 48	-69 01				434023
50145	LAREDO*RAOAR, TEX.	4012	11 30	17 54 10.0			67 00	34 24	937	845007
10369	SAN FERNANDO*BN, SP.	9004	11 30	18 14 35.30	4 10 30	61 14				434013
30253	DENVER, COLO.	8592	12 01	0 59 04.9			25 36	52 30		845003
30254	CHINA LAKE, CAL.	0098	12 01	2 43 26.6			34 48	66 51 36		845003
10376	VILLA DOLORES*BN, ARG	9011	12 01	4 56 19.96	2 49 30	-69 04				434023
30267	MITAKA, JAPAN	0229	12 01	9 27 59.1			34 56	66 18		845003
10372	WOOMERA*8N, AUSTR.	9003	12 01	15 02 56.02	5 30 30	-72 50				434023
10373	SAN FERNANDO*8N, SP.	9004	12 01	19 35 57.30	22 36 36	29 05				434013
30255	MILWAUKEE, WISC.	0074	12 02	0 37 35.1	22 07	14 18				641043
30256	CHINA LAKE, CAL.	8588	12 02	2 19 16.8			34 12 00	63 25 48		845003
10382	VILLA DOLORES*BN, ARG	9011	12 02	4 32 10.34	2 58 48	-68 53				434023
10383	VILLA DOLORES*BN, ARG	9011	12 02	6 19 16.89	21 32 30	-73 18				434023

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10377	WOOMERA'BN, AUSTR.	9003	12 02	14 38 32.43	4 54 00	-69 31				434023
10380	SAN FERNANDO'BN, SP.	9004	12 02	19 12 05.40	22 55 36	27 36				434013
30257	MILWAUKEE, WISC.	0074	12 03	0 13 29.5	21 58	16 00				641043
30258	TERRE HAUTE, INO.	8127	12 03	0 14 11.0			216	77 25		845303
10384	VILLA OLORES'BN, ARG	9011	12 03	4 07 36.11	2 26 00	-62 30				434023
10467	TOKYO'BN, JAPAN	9005	12 03	8 35 43.80	21 42 06	-9 18				434013
10385	TOKYO'BN, JAPAN	9005	12 03	8 39 37.60	0 47 30	57 33				434013
10378	WOOMERA'BN, AUSTR.	9003	12 03	14 14 12.68	4 34 00	-66 35				434023
10381	SHIRAZ'BN, IRAN	9008	12 03	15 28 16.01	23 28 06	30 45				434013
10386	JUPITER'BN, FLA.	9010	12 03	23 53 14.94	0 48 42	58 31				434013
30263	SACRAMENTO, CAL.	8590	12 04	3 15 08.4	21 48 42	-13 03				845013
10379	WOOMERA'BN, AUSTR.	9003	12 04	13 50 53.02	6 49 36	-67 40				434023
10387	JUPITER'BN, FLA.	9010	12 04	23 26 46.38	17 23 00	71 55				434013
10388	JUPITER'BN, FLA.	9010	12 04	23 27 17.24	18 44 12	75 34				434013
10389	JUPITER'BN, FLA.	9010	12 04	23 28 08.54	22 29 06	74 44				434013
30264	PUEBLA, MEX.	0900	12 05	1 12 06.8	23 30 00	71 40				845043
30265	PUEBLA, MEX.	0900	12 05	1 12 28.1	0 19 18	66 42				845043
10390	VILLA OLORES'BN, ARG	9011	12 05	3 18 42.02	1 47 18	-52 45				434023
10391	ORGAN PASS'BN, N.M.	9001	12 06	0 45 10.40	23 13 54	47 59				434013
10392	VILLA OLORES'BN, ARG	9011	12 06	2 54 32.68	1 50 30	-52 57				434023
10410	TOKYO'BN, JAPAN	9005	12 06	9 12 36.00	20 34 48	-3 04				434013
10393	WOOMERA'BN, AUSTR.	9003	12 06	11 14 03.52	4 19 36	16 08				434013
10394	WOOMERA'BN, AUSTR.	9003	12 06	13 00 01.41	1 51 26	-40 19				434023
10395	VILLA OLORES'BN, ARG	9011	12 07	0 42 10.33	2 58 30	27 49				434013
10396	VILLA OLORES'BN, ARG	9011	12 07	0 46 09.36	5 31 06	-5 38				434013
10397	VILLA OLORES'BN, ARG	9011	12 07	2 27 06.48	23 44 24	-5 27				434013
10411	TOKYO'BN, JAPAN	9005	12 07	8 47 57.50	19 48 36	3 28				434013
10401	WOOMERA'BN, AUSTR.	9003	12 07	10 49 55.03	4 08 18	16 17				434013
10400	WOOMERA'BN, AUSTR.	9003	12 07	12 35 59.93	2 01 48	-41 51				434023
10399	WOOMERA'BN, AUSTR.	9003	12 07	14 23 04.02	21 45 54	-68 28				434023
50146	LAREDO'RAOAR, TEX.	4012	12 07	15 02 56.3			163 18 00	26 12 00	1148	895307
50147	LAREDO'RAOAR, TEX.	4012	12 07	16 48 36.8			298 18 00	20 42 00	1284	895307
30266	QUEZON CITY, PH. IS.	0500	12 08	10 10 46			53	83 30		845302
10403	WOOMERA'BN, AUSTR.	9003	12 08	12 11 43.65	1 54 42	-39 15				434023
10404	WOOMERA'BN, AUSTR.	9003	12 08	13 58 53.96	21 29 54	-69 49				434023
10405	VILLA OLORES'BN, ARG	9011	12 09	1 41 15.74	0 58 54	-39 12				434023
50148	LAREDO'RAOAR, TEX.	4012	12 09	16 00 21.0			294 24 00	23 30 00	1180	895307
50149	LAREDO'RAOAR, TEX.	4012	12 10	15 36 15.0			292 18 00	25 00 00	1116	895307
10406	WOOMERA'BN, AUSTR.	9003	12 10	18 35 27.92	12 41 18	-28 50				434023
10412	VILLA OLORES'BN, ARG	9011	12 11	8 03 51.86	10 45 00	-52 58				434023
10407	WOOMERA'BN, AUSTR.	9003	12 11	10 59 29.07	2 18 48	-39 06				434023
10408	WOOMERA'BN, AUSTR.	9003	12 11	12 45 54.77	21 04 12	-68 55				434023
10409	WOOMERA'BN, AUSTR.	9003	12 11	18 10 30.92	12 10 54	-44 16				434023
10414	VILLA OLORES'BN, ARG	9011	12 12	5 52 38.72	14 16 24	-66 53				434023
10413	WOOMERA'BN, AUSTR.	9003	12 12	17 45 50.32	11 47 12	-53 56				434023
10417	VILLA OLORES'BN, ARG	9011	12 13	1 51 17.96	20 42 42	-66 32				434023
10415	AREQUIPA'BN, PERU	9007	12 13	9 03 33.23	11 10 06	-25 21				434023
10416	OLIFANTSFNNT'BN, S.AF	9002	12 13	18 38 56.33	20 29 54	-56 32				434023
50158	LAREDO'RAOAR, TEX.	4012	12 13	21 32 55.5			2 30	35 18	1100	895307
10418	AREQUIPA'BN, PERU	9007	12 14	8 39 24.99	11 11 18	-26 35				434023
10419	OLIFANTSFNNT'BN, S.AF	9002	12 15	1 27 33.56	8 23 00	-28 30				434023
10421	VILLA OLORES'BN, ARG	9011	12 15	4 39 50.21	13 25 00	-67 40				434023
10422	VILLA OLORES'BN, ARG	9011	12 15	6 26 19.40	9 36 36	-63 13				434023
10420	AREQUIPA'BN, PERU	9007	12 15	8 14 06.28	9 49 06	-51 53				434023
10423	WOOMERA'BN, AUSTR.	9003	12 15	11 08 29.49	20 34 30	-65 32				434023
10424	WOOMERA'BN, AUSTR.	9003	12 15	16 32 43.30	11 10 30	-62 04				434023
10440	VILLA OLORES'BN, ARG	9011	12 16	0 39 56.65	17 12 00	-84 22				434023
10441	VILLA OLORES'BN, ARG	9011	12 16	4 15 05.62	13 38 36	-70 41				434023
10442	VILLA OLORES'BN, ARG	9011	12 16	5 02 24.10	9 52 54	-50 00				434023
10443	VILLA OLORES'BN, ARG	9011	12 16	7 44 56.35	3 49 18	-20 10				434013
10444	VILLA OLORES'BN, ARG	9011	12 16	7 50 38.12	8 05 36	33 02				434013
10430	WOOMERA'BN, AUSTR.	9003	12 16	16 08 29.81	11 03 06	-61 36				434023
10429	WOOMERA'BN, AUSTR.	9003	12 16	17 54 38.90	6 30 12	-0 06				434013
10434	SHIRAZ'BN, IRAN	9008	12 17	2 41 41.09	11 21 42	44 56				434013
10437	JUPITER'BN, FLA.	9010	12 17	11 06 02.37	11 20 48	32 05				434013
10438	JUPITER'BN, FLA.	9010	12 17	11 06 41.83	13 04 12	48 09				434013
10428	ORGAN PASS'BN, N.M.	9001	12 17	12 47 52.30	12 48 24	-0 05				434013
10431	WOOMERA'BN, AUSTR.	9003	12 17	15 44 11.35	10 54 00	-62 20				434023
10433	MAINI TAL'BN, INOIA	9006	12 18	0 36 32.74	10 45 12	46 44				434013
10449	SHIRAZ'BN, IRAN	9008	12 18	2 17 11.78	10 39 42	30 08				434013
10445	VILLA OLORES'BN, ARG	9011	12 18	5 12 15.21	5 41 00	-81 00				434023
10446	VILLA OLORES'BN, ARG	9011	12 18	5 16 42.98	10 52 30	-14 30				434013
10432	SAN FERNANDO'BN, SP.	5004	12 18	5 39 31.00	13 25 04	-15 09				434013
10436	CURACAO'BN, N.W.I.	9009	12 18	8 55 08.07	10 46 24	8 13				434013
10439	JUPITER'BN, FLA.	9010	12 18	10 42 10.48	12 01 30	35 04				434013
10427	ORGAN PASS'BN, N.M.	9001	12 18	12 24 11.69	13 27 30	6 14				434013
10447	MAUI'BN, HAWAII	9012	12 18	15 44 47.45	9 01 12	62 40				434013
10457	TOKYO'BN, JAPAN	9005	12 18	20 52 22.50	10 21 06	38 45				434013
10435	SHIRAZ'BN, IRAN	9008	12 19	1 52 59.24	10 35 12	24 21				434013

OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
10450	VILLA DOLORES*BN, ARG	9011	12 19	4 47 00.80	0 44 54	-77 47				434023
10451	VILLA DOLORES*BN, ARG	9011	12 19	4 51 12.51	10 22 00	-32 40				434023
50159	LAREDO*RAOAR, TEX.	4012	12 19	11 58 51.0			258 48 00	45 00 00	875	895307
10452	WOOMERA*BN, AUSTR.	9003	12 19	14 56 28.86	10 39 06	-49 30				434023
10455	TOKYO*BN, JAPAN	9005	12 19	20 28 15.10	10 25 12	36 12				434013
10458	NAINI TAL*BN, INDIA	9006	12 19	23 48 14.92	10 56 00	38 49				434013
10459	VILLA DOLORES*BN, ARG	9011	12 20	2 38 11.01	12 09 42	-67 44				434023
10460	VILLA DOLORES*BN, ARG	9011	12 20	4 25 27.94	9 40 00	-57 35				434023
10453	ORGAN PASS*BN, N.M.	9001	12 20	11 36 35.27	13 54 42	11 41				434013
10456	TOKYO*BN, JAPAN	9005	12 20	20 05 09.20	13 43 30	54 25				434013
10462	VILLA DOLORES*BN, ARG	9011	12 21	2 13 11.61	12 48 00	-72 38				434023
10454	SAN FERNANDO*BN, SP.	9004	12 21	6 12 43.90	8 30 12	59 45				434013
10461	ORGAN PASS*BN, N.M.	9001	12 21	12 57 00.07	5 54 00	57 35				434013
50167	ASHKHABAD, USSR	1006	12 22	0 43 25.8	11 09 48	-11 42				845009
50168	ASHKHABAD, USSR	1006	12 22	0 44 39.5	12 20 00	-11 00				845009
10463	SAN FERNANDO*BN, SP.	9004	12 22	5 48 27.10	8 26 06	54 22				434013
10465	WOOMERA*BN, AUSTR.	9003	12 23	13 18 05.65	9 56 30	-67 07				434023
10466	VILLA DOLORES*BN, ARG	9011	12 24	1 00 42.62	11 16 12	-68 54				434023
10468	VILLA DOLORES*BN, ARG	9011	12 24	2 47 47.40	8 58 00	-66 23				434023
50236	BRATISLAVA*P, CZECH.	5702	12 24	5 06 20.2	13 35 42	51 24				834042
50169	KRASNODAR, USSR	1027	12 25	2 59 44.2	10 46	64 30				845009
50170	LVOV, USSR	1031	12 25	4 42 02.5	9 40 00	25 36				845009
50171	LVOV, USSR	1031	12 25	4 42 49.1	11 26 00	39 42				845009
10469	VILLA DOLORES*BN, ARG	9011	12 26	1 57 31.74	10 28 00	-88 32				434023
30268	ROCHESTER, N.Y.	8564	12 26	11 03 48.2	23 00	83 13				845013
10471	VILLA DOLORES*BN, ARG	9011	12 27	1 35 13.25	8 33 36	-61 32				434023
10472	VILLA DOLORES*BN, ARG	9011	12 27	3 19 26.61	1 44 12	-37 26				434023
10470	WOOMERA*BN, AUSTR.	9003	12 28	13 03 14.44	4 34 30	-37 30				434023
50166	LAREDO*RAOAR, TEX.	4012	12 28	17 16 12			296 36 00	44 42 00	790	895307
50174	ORENBURGH, USSR	1063	12 29	3 11 12.9	11 00 00	29 12				845009
50175	ORENBURGH, USSR	1063	12 29	3 12 06.2	13 38.30	28 18				845009
10473	WOOMERA*BN, AUSTR.	9003	12 29	12 39 03.65	4 37 42	-38 13				434023
50172	LAREDO*RAOAR, TEX.	4012	12 29	16 54 52.5			147 36 00	37 00 00	925	895307
50176	BLAGOVESTCHENSK, USSR	1010	12 29	21 44 18.4	15 19 00	40 30				845009
50177	BLAGOVESTCHENSK, USSR	1010	12 29	21 45 03.1	16 39 00	27 00				845009
50173	LAREDO*RAOAR, TEX.	4012	12 30	16 27 52.5			310 48 00	45 46 00	755	895307
50181	BLAGOVESTCHENSK, USSR	1010	12 30	21 18 47.7	9 47 00	45 48				845009
50182	BLAGOVESTCHENSK, USSR	1010	12 30	21 20 09.8	15 03 48	41 06				845009
50178	ULJANOVSK, USSR	1071	12 31	2 22 35.8	12 24 00	15 06				845009
50183	ORENBURGH, USSR	1063	12 31	2 23 04.6	10 47 30	32 12				845009
50179	ULJANOVSK, USSR	1071	12 31	2 23 24.7	14 08	11 30				845009
50184	ORENBURGH, USSR	1063	12 31	2 23 30.7	12 08 00	32 12				845009
50180	ULJANOVSK, USSR	1071	12 31	2 23 49	14 47	9				845009

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OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
50185	POTSDAM, GER.	2729	2 15	17 43 55.9	4 40 48	26 00				834009
50186	POTSDAM, GER.	2729	2 15	17 44 15.8	5 35 30	26 10				834009
50187	POTSDAM, GER.	2729	2 15	17 44 44.7	6 46 12	24 34				834009
50231	POTSDAM, GER.	2729	4 01	3 37 27.2	17 01 06	36 00				834009
50232	RODEWISCH, GER.	2733	4 02	3 14 14.4	16 57 54	47 12				834009
50188	POTSDAM, GER.	2729	4 03	2 51 00.5	16 28 59	36 48				834009
50189	POTSDAM, GER.	2729	4 04	2 27 53.6	16 09 47	37 11				834009
50190	POTSDAM, GER.	2729	4 06	1 41 19.7	15 31 38	37 47				834009
50191	POTSDAM, GER.	2729	4 06	1 41 36.8	15 59 06	37 01				834009
50192	POTSDAM, GER.	2729	4 06	1 42 12.0	16 58 12	34 03				834009
50193	POTSDAM, GER.	2729	4 07	1 18 04.9	15 12 15	38 00				834009
50194	POTSDAM, GER.	2729	4 08	0 54 49.5	14 53 32	38 11				834009
50195	POTSDAM, GER.	2729	4 13	22 35 17.0	12 56 31	38 28				834009
50196	POTSDAM, GER.	2729	4 14	22 12 07.7	12 51 48	38 24				834009
50197	POTSDAM, GER.	2729	4 15	21 48 44.8	12 16 37	38 12				834009
50198	POTSDAM, GER.	2729	4 15	21 49 55.1	14 20 30	33 34				834009
50199	POTSDAM, GER.	2729	4 15	21 50 52.8	15 34 30	26 38				834009
50200	POTSDAM, GER.	2729	4 16	21 25 28.7	11 56 22	37 59				834009
50201	POTSDAM, GER.	2729	4 17	21 02 37.6	12 28 30	37 45				834009

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OBS NO	STATION	STA NO	DATE	TIME	R. A.	DECL.	AZIMUTH	ALTITUDE	RANGE	INDEX
50202	POTSDAM, GER.	2729	4 18	20 38 57.2	11 19 30	37 16				834009
50203	POTSDAM, GER.	2729	4 18	20 39 42.8	12 48 54	35 41				834009
50204	POTSDAM, GER.	2729	4 18	20 41 02.1	14 41 18	26 52				834009
50205	POTSDAM, GER.	2729	4 19	20 15 39.7	10 59 30	37 06				834009
50206	POTSDAM, GER.	2729	4 19	20 16 56.8	13 23 42	32 19				834009
50207	POTSDAM, GER.	2729	4 19	20 18 58.0	15 17 42	19 10				834009
50208	POTSDAM, GER.	2729	4 20	19 52 22.7	10 39 35	36 42				834009
50209	POTSDAM, GER.	2729	4 21	19 29 06.5	10 20 20	36 14				834009
50210	POTSDAM, GER.	2729	6 15	23 26 30.1	18 08 48	23 31				834009
50211	POTSDAM, GER.	2729	6 15	23 27 05.2	19 16 00	25 24				834009
50212	POTSDAM, GER.	2729	6 15	23 27 57.9	20 48 12	24 46				834009
50233	RODEWISCH, GER.	2733	6 18	22 14 02.7	17 50 18	33 42				834009
10262	TOKYO, JPN.	9005	6 20	11 14 50.40	15 26 36	45 33				434073
10263	TOKYO, JPN.	9005	6 20	13 02 00.00	5 27 00	81 46				434013
50213	POTSDAM, GER.	2729	6 20	23 14 54.3	18 16 00	35 41				834009
50214	POTSDAM, GER.	2729	6 20	23 15 47.9	20 06 12	30 27				834009
50215	POTSDAM, GER.	2729	6 20	23 16 49.8	21 29 54	21 05				834009
50234	RODEWISCH, GER.	2733	6 23	0 13 02.8	19 24 18	19 54				834009
50216	POTSDAM, GER.	2729	6 23	22 04 17.1	17 22 54	36 49				834009
50217	POTSDAM, GER.	2729	6 23	22 05 32.8	19 43 48	29 03				834009
50218	POTSDAM, GER.	2729	6 23	22 05 54.1	20 12 00	26 05				834009
50219	POTSDAM, GER.	2729	6 23	23 50 29.3	18 55 12	11 22				834009
50220	POTSDAM, GER.	2729	6 23	23 50 49.9	19 25 06	9 02				834009
50221	POTSDAM, GER.	2729	6 23	23 51 36.9	20 21 48	2 53				834009
50222	POTSDAM, GER.	2729	6 24	21 40 51.8	17 20 42	37 01				834009
50235	RODEWISCH, GER.	2733	6 24	21 41 00.2	18 02 24	48 18				834009
50223	POTSDAM, GER.	2729	6 24	21 41 31.2	18 38 48	33 40				834009
50224	POTSDAM, GER.	2729	6 24	21 42 33.8	20 07 24	24 52				834009
50225	POTSDAM, GER.	2729	6 24	23 26 54.3	18 32 36	13 19				834009
50226	POTSDAM, GER.	2729	6 24	23 27 33.2	19 29 18	8 31				834009
50227	POTSDAM, GER.	2729	6 24	23 28 14.7	20 14 48	3 01				834009
50228	POTSDAM, GER.	2729	6 25	23 03 15.3	18 05 42	15 52				834009
50229	POTSDAM, GER.	2729	6 25	23 03 32.3	18 31 48	13 47				834009
50230	POTSDAM, GER.	2729	6 25	23 04 04.0	19 14 48	9 23				834009
10261	OLIFANTSFNTN, S. AF.	9002	7 27	17 51 13.43	11 48 00	-50 55				434023

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30070	AOELAIIDE, AUSTR.	0600	6 29	20 22 38			208 15	57 45		845303
30071	AOELAIIDE, AUSTR.	0600	6 29	20 22 43.5			202 30	57 45		845303



## NOTICE

This series of Special Reports was instituted under the supervision of Dr. F. L. Whipple, Director of the Astrophysical Observatory of the Smithsonian Institution, shortly after the launching of the first artificial earth satellite on October 4, 1957. Contributions come from the Staff of the Observatory. First issued to ensure the immediate dissemination of data for satellite tracking, the Reports have continued to provide a rapid distribution of catalogues of satellite observations, orbital information, and preliminary results of data analyses prior to formal publication in the appropriate journals.

Edited and produced under the supervision of Mrs. L. G. Boyd and Mr. E. N. Hayes, the Reports are indexed by the Science and Technology Division of the Library of Congress, and are regularly distributed to all institutions participating in the U. S. space research program and to individual scientists who request them from the Administrative Officer, Technical Information, Smithsonian Astrophysical Observatory, Cambridge 38, Massachusetts.